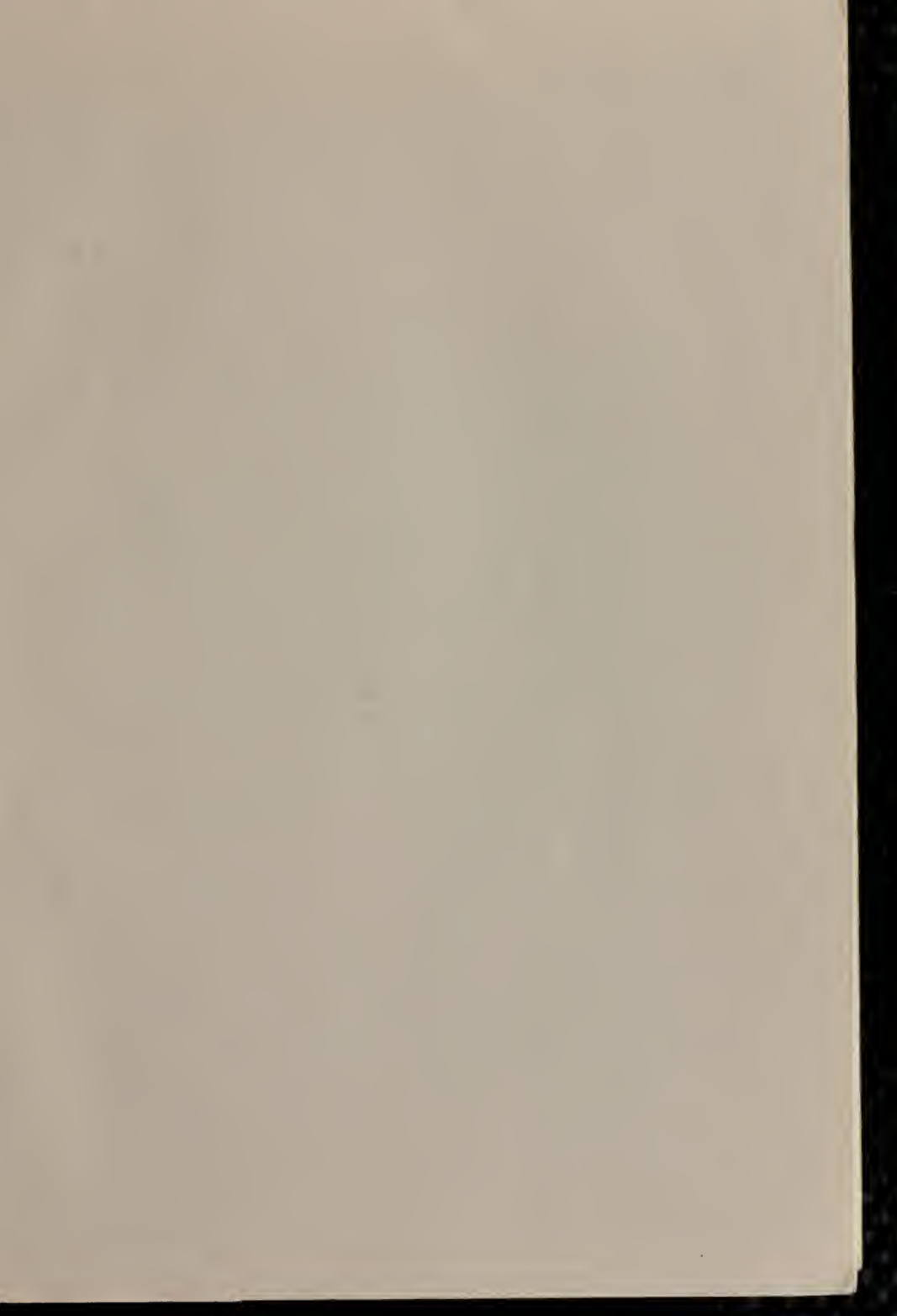




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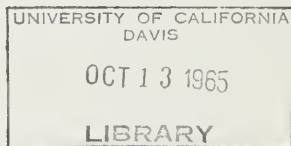
Department of Water Resources

BULLETIN No. 130-63

HYDROLOGIC DATA: 1963

Volume IV: SAN JOAQUIN VALLEY

MAY 1965



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Administrator
The Resources Agency

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Governor
State of California

WILLIAM E. WARNE
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Department of Water Resources

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ERRATA SHEET

Bulletin No. 130-63, Hydrologic Data 1963
Volume IV
San Joaquin Valley

Page vi	Delete Surface Water Quality Conditions...28
Page C-33	6S/22E-23R01 M should read 16S/22E-23R01 M
Page C-39	8S/25E-12Q01 M should read 18S/25E-12Q01 M
Page C-42	9S/23E-14R01 M should read 19S/23E-14R01 M
Page C-43	Second state well number should read 20S/24E-16N01 M
Page C-61	Second state well number should read 28S/25E-34J01 M
Page C-73	Second state well number should read 28S/24E-28A01 M
Page C-79	Second state well number should read 20S/15E-25D01 M Third state well number should read 20S/15E-32A01 M
Page E-5	Eighth paragraph should read ... listed in Table <u>12</u> , instead of Table E-5

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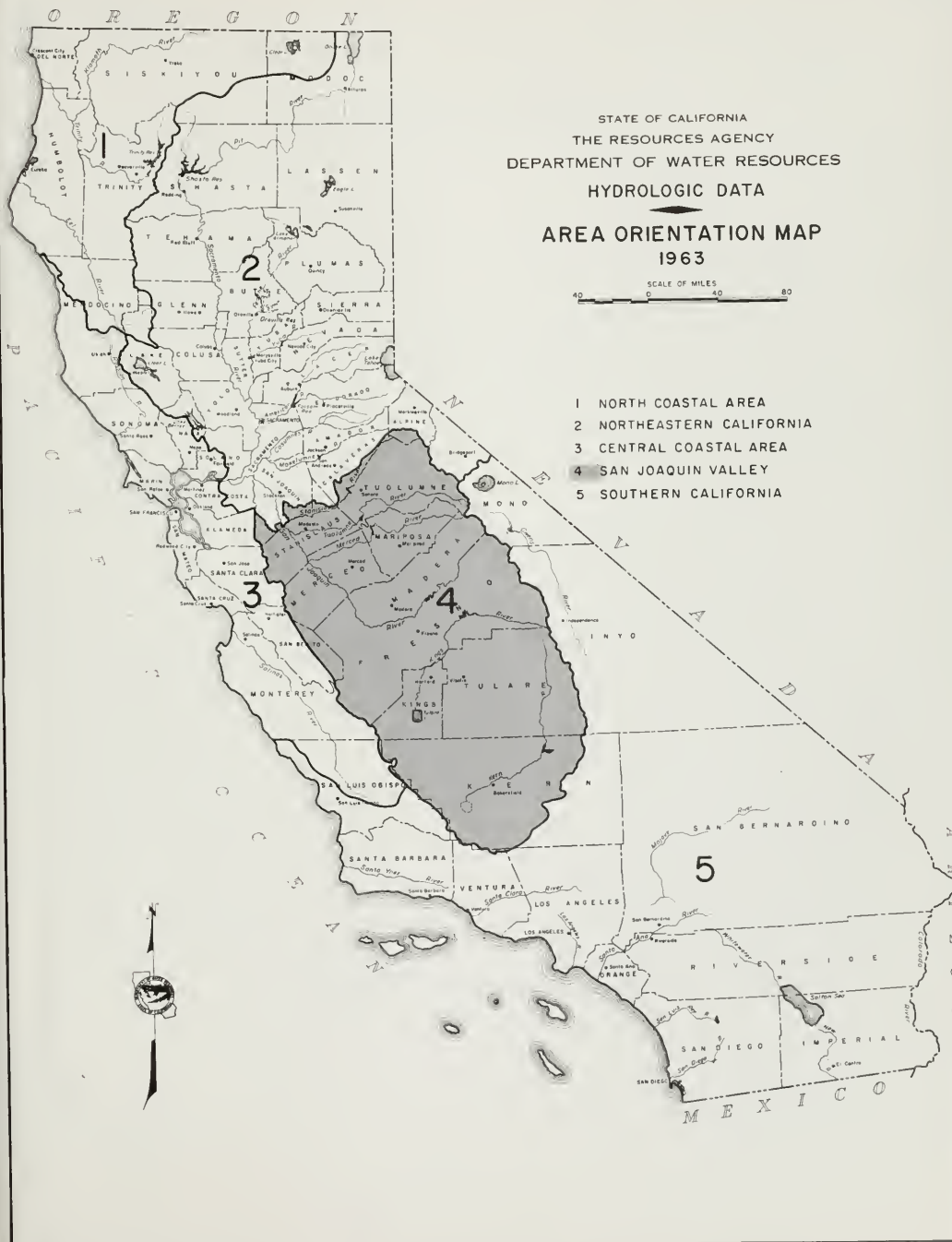
ORGANIZATION OF BULLETIN NO. 130 SERIES

- Volume I - NORTH COASTAL AREA
- Volume II - NORTHEASTERN CALIFORNIA
- Volume III - CENTRAL COASTAL AREA
- Volume IV - SAN JOAQUIN VALLEY
- Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

- Appendix A - CLIMATE
- Appendix B - SURFACE WATER FLOW
- Appendix C - GROUND WATER MEASUREMENTS
- Appendix D - SURFACE WATER QUALITY
- Appendix E - GROUND WATER QUALITY



STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA

AREA ORIENTATION MAP
1963

SCALE OF MILES
0 40 80

- 1 NORTH COASTAL AREA
- 2 NORTHEASTERN CALIFORNIA
- 3 CENTRAL COASTAL AREA
- 4 SAN JOAQUIN VALLEY
- 5 SOUTHERN CALIFORNIA

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DEPARTMENT OF WATER RESOURCES

P. BOX 388
SACRAMENTO

March 15, 1965

Honorable Edmund G. Brown, Governor,
and Members of the Legislature of
the State of California

Gentlemen:

Bulletin No. 130-63, entitled "Hydrologic Data, Volume IV, San Joaquin Valley", presents data on hydrologic conditions in the San Joaquin Valley during the 1963 reporting year.

This bulletin is the first of a series which incorporates data on surface water, ground water, and climate previously published annually in Bulletins No. 23, 39, 65, 66, and 77. With the inauguration of the new series, publication of the earlier reports is discontinued.

Bulletin No. 130 will be published annually in five volumes, each volume to report hydrologic data for one of five specific reporting areas of the State. The area orientation map on page iii delineates these areas. Page ii outlines the organization of the bulletin, its volumes, and appendices.

The collection and publication of data as contained in Bulletin No. 130 are authorized by Sections 225, 226, 229, 230, 232, 345, 12609, and 12616 of the California Water Code.

The basic data programs of the Department of Water Resources have been designed to supplement the activities of other agencies to satisfy specific needs of the State. Bulletin No. 130 presents to the public useful, comprehensive, accurate, timely hydrologic data, which are prerequisites for effective planning, design, construction, and operation of water facilities.

Collection of much of the data presented has been possible only because of the generous cooperation and assistance of other agencies and many individuals; these cooperators are shown in the tables where appropriate. Without this assistance Bulletin 130-63 would be a much less valuable tool.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "W. E. Warne".

Director

State of California
The Resources Agency
Department of Water Resources

EDMUND G. BROWN, Governor
HUGO FISHER, Administrator, The Resources Agency of California
WILLIAM E. WARNE, Director, Department of Water Resources
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INTRODUCTION

This is Volume IV in a series of basic data reports presented under a new format entitled "Bulletin 130-63, Hydrologic Data." The five volumes of the bulletin embrace the entire State of California, each volume being prepared by the area branch or district of the department responsible for the publication of basic data collected in its respective area. These areas are shown on the frontispiece map.

This report contains a record of hydrologic data collected and assembled by the San Joaquin Valley Branch of the Department of Water Resources. It brings together in a permanent and usable form the following types of hydrologic basic data collected during the respective time intervals as shown below:

Surface Water Flows	October 1, 1962 - September 30, 1963
Diversion Data	October 1, 1962 - September 30, 1963
Climate Data	July 1, 1962 - June 30, 1963
Ground Water Level Measurements	July 1, 1962 - June 30, 1963
Surface Water Quality	October 1, 1962 - September 30, 1963
Ground Water Quality	October 1, 1962 - September 30, 1963

Location and General Features of the San Joaquin Valley

The San Joaquin Valley includes approximately the southern two-thirds of the Great Central Valley of California. It is a broad structural trough surrounded on three sides by mountains: the Sierra Nevada on the east, the Coast Range on the west, and the Tehachapi and San Emigdio Mountains on the south. It is separated from the Sacramento Valley on the north by the combined deltas of the Sacramento and San Joaquin Rivers. The valley extends 250 miles southeasterly from Stockton to Grapevine at the foot of the Tehachapi Mountains; the width of the valley floor ranges from 25 miles near Bakersfield to 55 miles near Visalia and averages about 35 miles. The area of the valley floor is 10,000 square miles, excluding the rolling foothills that skirt the mountains.

East of the San Joaquin Valley the Sierra Nevada rises in a distance of 45 to 60 miles to altitudes of 14,000 feet or more; to the west the Coast Range rises to 6,000 feet; and on the south the valley is enclosed by the San Emigdio and Tehachapi Mountains which rise to altitudes of about 8,000 feet. Only at Carquinez Strait, a break in the Coast Range east of San Francisco Bay, does the Great Central Valley open to the sea.

The valley floor rises gently from sea level at the north end to 500 feet above sea level about 21 miles south of Bakersfield; alluvial fans along the valley borders rise to altitudes as high as 700 to 1,800 feet. The gentle northward gradient of the valley floor is interrupted by a low divide in the neighborhood of the Kings River, about 15 miles west of Hanford; the San Joaquin Valley is divided at that point into two separate drainage basins - the San Joaquin River Basin and the Tulare Basin.

Scope of Report

The areal scope of this volume of the report is depicted on Plates A-1, B-1, C-1, D-1, and E-1. The location of climatological stations for which data are presented is shown on Plate A-1 and the location of surface water gaging stations on Plate B-1. The basins, subbasins, or areas in the San Joaquin Valley for which ground water levels are reported are shown on Plate C-1. The locations of surface water sampling stations are shown on Plate D-1, and the basins, subbasins, or areas used to locate the ground water quality samples are shown on Plate E-1.

The following chapters present information on precipitation, evaporation, and temperature, surface runoff, diversions, reservoir storage, imported water supplies, ground water conditions, and quality of surface and ground water.

The tabulated basic data are presented in Appendixes A through E. These appendixes include all basic data collected pertaining to climate, surface water flow, ground water level measurements and water quality analyses of surface and ground water.

Numbering System Designations

In the paragraphs which follow, there are presented descriptions of the various numbering and coding systems used in this report. These systems are utilized to facilitate machine data processing.

Region Designation

The region designations used in this report pertain to geographic areas as defined in Section 13040 of the Water Code. The State is divided into nine regions and the San Joaquin Valley area encompasses that portion of the Central Valley region south of the north boundary of the Stanislaus River drainage area.

Climate Station Designation

The climatological station designations used herein and in Appendix A are based on the drainage basin and alpha number. Stations are also named and latitude and longitude locations are determined to the nearest minute.

Each main drainage basin is assigned a letter and each subbasin a number, as shown on Plate A-1 of this report.

The alpha order number is assigned each station to denote its order in alphabetical sequence for machine processing. The subnumbers are used to avoid duplication of the original four-digit system for machine processing. Only 21 columns are available for station name; therefore, some abbreviations are necessary.

Surface Water Gaging Station Designation

The index number for each gaging station is composed of a number which begins with an alphabetical letter designating the hydrographic area, followed by the first digit which indicates the main river basin. The second digit refers to a tributary of the main river basin. The hydrographic area and the river basins are outlined on Plate B-1. The remaining three digits are used to number stations in an upstream direction with the lowest number at or near the mouth. The digit 9, which is the third from the left, indicates that the station is a surface gravity diversion station. Each station is listed by name as well as by machine index number.

Ground Water Basin and Area Designation

With respect to the basin numbering system code, a decimal numbering system of the form 0-00.00 has been used. The number to the left of the dash refers to the geographic region described above. On the right of the dash, the first two digits refer to a hydrographic unit, generally designated as a basin, valley, or area. These are followed by decimals which designate a subbasin, area, or subarea within the basin. These basins, areas, or subareas are shown on Plates C-1 and C-2.

Well-numbering System

The state well-numbering system used in this report is based on township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report, the number of a well assigned in accordance with this system is referred to as the state well number.

Under this system, each section is divided into 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned state well numbers. For example, a well which has the number 16S/15E-17K1 M would be in Township 16 South, Range 15 East, Section 17, M.D.B.&M., and would be further designated as the first well assigned a state well number in Tract K. In this volume, well numbers are referenced to the Mount Diablo Base and Meridian (M), or the San Bernardino Base and Meridian (S).

CHAPTER II

CLIMATE

Introduction

The climate of the San Joaquin Valley is characterized by hot summers and mild winters. Midday temperatures in midsummer are high, occasionally 110° F. with extremes as high as 120° F. having been recorded. The diurnal temperature variation also is extreme, especially in summer when frequently it is 40° F. or more.

Annual precipitation decreases from north to south and east to west across the valley. The average annual precipitation ranges from 5.38 inches at Buttonwillow in the southern part of the valley to 17.42 inches at Knights Ferry in Stanislaus County at the northern end of the valley. Precipitation figures are based on the 50-year mean period 1910-1960.

As moist air moves in from the Pacific Ocean and ascends the western slope of the Sierra Nevada, precipitation increases and reaches a maximum in the higher parts of the range. The mean annual precipitation exceeds 40 inches in much of the higher mountainous part of the Sierra Nevada tributary to the San Joaquin Valley and exceeds 60 inches in small isolated areas. During winter, snowfall is heavy in the Sierra Nevada at elevations above 3,000 to 4,000 feet.

Precipitation and runoff in the Central Valley vary not only from winter to summer, but from year to year.

Scope

The area covered by this report and its geographical relation to the Central Valley Drainage Basin are both shown on Plate A-1.

The Department of Water Resources gathers basic data relating to climatic phenomena in the San Joaquin Valley. This involves field measurements and office computations to determine the instantaneous, daily, monthly, seasonal, and annual temperatures, precipitation, and evaporation.

The field activities include the installation and maintenance of weather stations. The installed equipment obtains measurements of: (1) daily maximum and minimum temperatures; (2) precipitation - annual amounts from storage gages in remote areas, daily amounts from standard rain gages, and instantaneous amounts from recording rain gages; (3) evaporation in inches per day; and (4) wind movement in miles per day. In addition, similar data are obtained from many public and private agencies and individuals.

The department contributes to the cooperative program with the U. S. Weather Bureau by providing services for the installation, maintenance, and operation of approximately 100 stations in the State, eight of which are located in the San Joaquin Valley. The U. S. Weather Bureau publishes these data in the official U. S. Weather Bureau publication, "Climatological Data."

The office activities consist of computation and compilation of approximately 150 monthly climatological station observations to provide a continuous and current record. This includes the computation of intensities from recording rain gages and preparation of hourly precipitation records for future use in development of rainfall intensity-duration-frequency relationships.

Precipitation

Precipitation during the 1962-63 season for the San Joaquin Valley area as a whole was normal. This is a continuation of two years of normal rainfall in the valley preceded by three years of below-normal precipitation.

This year's precipitation, measured from July 1, 1962, through June 30, 1963, varied from 109 percent of normal at Modesto on the north to 74 percent at Bakersfield on the south. The greatest deviations from normal were 131 percent at Mariposa and 65 percent at Maricopa.

The San Joaquin Valley area may be divided into three general parts: the west side, the valley floor, and the east side or Sierra Nevada. Table 1, "Seasonal and Mean Precipitation at Selected Stations in the San Joaquin Valley," shows the distribution of rainfall west to east across the valley. Averages of precipitation normals show for the west side stations 6.3 inches, for the valley floor 9.7 inches, and for the east side 16.6 inches.

The seasonal deviation from normal of the three general areas is 86 percent on the west side, 103 percent on the valley floor, and 109 percent on the east side.

TABLE 1
SEASONAL AND MEAN PRECIPITATION AT
SELECTED STATIONS IN THE SAN JOAQUIN VALLEY

Alpha Order Number	Station	County	50-Year Mean 1910-1960 In inches	1962-63 Season	
				In inches	Percent of Mean
<u>West Side</u>					
B8 6675	Panoche	San Benito	7.51	8.20	109
C0 1867	Coalinga 1 SE	Fresno	6.80	7.04	104
C0 4536	Kettleman Sta.	Kings	6.21	5.69	92
C0 1244	Buttonwillow	Kern	5.38	3.86	72
C7 5338	Maricopa	Kern	5.54	3.60	65
<u>Valley Floor</u>					
B0 5297-01	Manteca No. 2	San Joaquin	11.65	12.32	106
B0 5738	Modesto	Stanislaus	11.56	12.59	109
B0 9073	Turlock	Stanislaus	11.71	12.86	110
B0 5532	Merced Fire Sta. 2	Merced	11.89	12.31	104
B0 5233	Madera	Madera	10.11	9.62	95
C0 3257	Fresno WB A.P.	Fresno	9.65	11.59	120
C0 9367	Visalia	Tulare	9.39	9.08	97
C0 3747	Hanford	Kings	8.10	8.15	101
C0 9452	Wasco	Kern	6.32	7.15	113
C0 0442	Bakersfield A. P.	Kern	6.19	4.55	74
<u>East Side</u>					
B0 4590	Knights Ferry 2 SE	Stanislaus	17.42	20.31	117
B5 1588	Cathay Bull Run Rch.	Mariposa	19.72	24.50	124
B5 5346	Mariposa	Mariposa	28.94	37.80	131
B7 3261	Friant Gov't. Camp	Fresno	13.38	16.24	121
C2 6476	Orange Cove	Fresno	12.90	12.16E	94
C2 4890	Lemon Cove	Tulare	13.68	11.88	87
C0 7077	Porterville	Tulare	10.39	8.99	87

Three incidents of relative climatological importance occurred during the 1962-63 season: The storm of October 8 through October 15, 1962, raised the valley precipitation to 89 percent of normal after a dry fall; for the period January 30 through February 2, a high intensity storm struck the valley again, raising the averages to 71 percent of normal after the November and December doldrums of fog and cold; the gradual and general cool rains of April, followed by above-normal precipitation in May and June, resulted in normal to above normal precipitation for the year.

The occurrences described above are shown in Table 2 "Cumulative Monthly Precipitation at Key Stations in the San Joaquin Valley."

TABLE 2

CUMULATIVE MONTHLY PRECIPITATION
AT KEY STATIONS IN THE SAN JOAQUIN VALLEY
1962-63

Month	MODESTO				MERCED				MADERA				FRESNO				VISALIA				BAKERSFIELD			
	1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season		1962-63 Season	
	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean	50-Year Mean 1910-60 In inches	Percent of Mean
JULY	.01	.00	0		.01	.02	200		.01	.00	0		.01	T	0		.00	.00	0		.02	.00	0	
AUGUST	.03	.00	0		.02	.02	100		.02	.00	0		.02	.00	0		.01	.00	0		.03	.00	0	
SEPTEMBER	.19	T	0		.12	.02	17		.10	.00	0		T	0			.08	.02	25		.12	.02	17	
OCTOBER	.68	.59	87		.61	.55	90		.55	.47	85		.73	118			.49	.42	86		.42	.25	60	
NOVEMBER	1.68	1.23	73		1.76	.75	43		1.45	.57	39		.76	53			1.24	.42	34		.94	.25	27	
DECEMBER	3.95	3.23	82		3.79	2.73	72		3.18	1.75	55		1.24	40			2.81	.47	17		1.87	.25	13	
JANUARY	6.21	4.22	68		6.24	4.53	73		5.18	2.85	55		3.40	68			4.78	1.29	27		2.98	.37	12	
FEBRUARY	8.17	6.90	84		8.35	7.48	90		7.04	5.19	74		5.41	81			6.57	3.42	52		4.01	1.91	48	
MARCH	10.11	9.29	92		10.34	9.41	91		8.80	6.59	75		7.51	90			8.18	5.52	67		5.10	3.16	62	
APRIL	11.02	12.26	111		11.37	11.79	104		9.70	9.30	96		11.17	121			9.00	8.67	96		5.79	4.01	69	
MAY	11.46	12.58	110		11.81	12.25	104		10.04	9.62	96		11.56	121			9.33	8.89	95		6.11	4.27	70	
JUNE	11.56	12.59	109		11.89	12.31	104		10.11	9.62	95		11.59	120			9.39	9.08	97		6.19	4.55	74	

The San Joaquin Valley area normally receives 80 percent of the total seasonal precipitation by April 1. Also, by this date, maximum snowpack has been attained in the Sierras. On April 1, 1963, the valley floor had received rainfall in accumulated totals ranging from 92 percent of normal at Modesto on the north to 62 percent at Bakersfield on the south. Snowpack accumulation in the adjacent Sierras was only 35 percent of normal; however, the precipitation patterns of April, May, and June were far above normal: A new April high of 2.88 inches was established at Hanford superseding a long-term record of 2.67 inches recorded in 1926, and covering most of the Sierra watershed with excessive amounts. This resulted in normal to above normal precipitation, varying from 100 percent for the Tule River watershed to 130 percent for the Kings River watershed.

The distribution of rainfall on the entire area may be seen on Plate A-2, "Lines of Equal Precipitation, July 1, 1962, to June 30, 1963."

Temperatures, Evaporation, and Wind Movement

The distribution of temperatures, evaporation, and wind movement is presented in Table 3, "Average Temperatures, Total Evaporation and Average Wind Movement at Selected Stations in the San Joaquin Valley."

TABLE 3
AVERAGE TEMPERATURES, TOTAL EVAPORATION, AND
AVERAGE WIND MOVEMENT AT SELECTED STATIONS
IN THE SAN JOAQUIN VALLEY

Alpha Order Number	Station Name	Seasonal Ave. Temp. F°			Seasonal Evaporation Total Inches	Wind Movement Av. Mi./Mo.
		Max.	Min.	Mean		
C0 0332-02	Arvin-Frick	73.6	42.9	58.8	65.5	1943
C0 2013	Corcoran El Rico 1	70.2	45.6	60.9	77.3	1650
C6 2222	Cummings Valley	69.9	35.6	52.8	79.1	2312
B4 2473	Don Pedro Res.	75.1	47.4	61.3	79.6	M
C5 4304	Isabella Res.	74.9	46.2	60.6	79.7	2035
B0 5117	Los Banos	74.4	45.8	60.1	86.1	2524
C1 6895	Pine Flat Dam	76.9	47.4	62.2	65.8	826
B6 7273	Raymond 9N	75.3	44.1	59.7	67.1	493
C3 8620	Success Dam	76.6	50.6	63.6	84.7	1489
C7 8755	Taft KTKR	75.2	48.9	62.1	93.1	970
C2 8868	Terminus Dam	75.4	52.0	63.7	M	1679*
C0 9145	U.S. Cotton Field Sta.	76.5	49.2	62.8	81.4	1560
B0 9565	Westley	M	M	M	53.2	M

* Last 10 months of record not complete
M = Missing

CHAPTER III
SURFACE WATER FLOW

Introduction

The variable flows of the streams entering the San Joaquin Valley on the east side result from the rainfall runoff occurring each winter and spring season, principally from December through April. The snowmelt runoff occurs during the spring and summer months from March through June. A combination of runoff from perennial tributaries and released stored water occurs during the summer and fall seasons. Flood flows in the valley floor channels are caused by runoff from rainfall and melting snow in the mountain areas in excess of mountain reservoir capacities, and by rainstorm runoff from the vast area of minor foothill watersheds and valley floor lands. In more recent years, flooding has become a lesser threat in the San Joaquin Valley as a result of additional reservoirs constructed on many of the tributary watersheds, including the Kern, Tule, Kaweah, Kings, San Joaquin, Merced, Tuolumne, and Stanislaus Rivers. With the completion of the Lower San Joaquin River Flood Control Project and eventual construction of additional dams and reservoirs, such as Buchanan on the Chowchilla River, Hidden on the Fresno River, and New Melones on the Stanislaus River, flooding will cease to be a problem in the San Joaquin Valley except in years of excessive precipitation.

Scope

The area covered by this report and its geographical relation to the Central Valley Drainage Basin is shown on Plate B-1.

Records of daily flows at 80 stream-gaging stations located on streams on the San Joaquin Valley floor and on streams entering the valley are presented in Appendix B of this report. Measurements of flows at 175 points of diversion from major streams on the valley floor, diversions and acreage irrigated by east side irrigation districts, and deliveries from canals of the Central Valley Project are also included in Appendix B.

Hydrography

The Department of Water Resources' hydrographic activities in the San Joaquin Valley area are divided into two major categories - field and office.

The field activities include:

1. Operation and maintenance of 46 stream-gaging stations.
2. Measurement of streamflows passing the gaging stations at stages varied enough to establish a stage-discharge relationship.
3. Measurement of the quantities of water diverted by major diverters from the San Joaquin, Merced, Tuolumne, Stanislaus, and Tule Rivers, and from Dry Creek near Modesto.
4. Construction of new installations as needed to augment the base network of gaging stations operated by the U. S. Geological Survey.
5. Cooperation with public and private agencies and with other branches within the department in the gathering of hydrographic data.

The office activities include:

1. Preparation of hydrographic data for computation by machine computation methods.
2. Manual computation and compilation of the discharge of stations not adaptable to machine computation.
3. Computation and compilation of quantities of water diverted for use in quantities per month for pumped diversions and quantities per day for gravity diversions.
4. Preparation of rating curves based on a series of discharge measurements on each stream.
5. Computation of rating formulas for the curves written in machine language for machine computation purposes.

Hydrographic Activities of Other Agencies

The U. S. Geological Survey maintains and operates 159 streamflow stations in addition to the stations operated by the department in the San Joaquin Valley area. A number of these are operated under the Federal-State Cooperative Surface Water Measurement Program. The records are published annually in a report by the U. S. Department of the Interior, Geological Survey, entitled "Surface Water Records of California, Volume 2, Northern Great Basin and Central Valley."

The United States Bureau of Reclamation maintains and operates seven streamflow gaging stations which monitor natural inflow to the southern San Joaquin Valley. These stations are in addition to the Bureau's operation stations on project canals. Data from both types of stations appear in an annual report published by the Bureau of Reclamation entitled "Fresno Field Division Water Supply."

The U. S. Corps of Engineers, the City and County of San Francisco, and other local agencies maintain and operate stream-gaging stations within the San Joaquin Valley area. These data are published in this report. The specific degree of cooperation by these agencies with the Department of Water Resources is detailed in footnotes to tables contained in this report.

Runoff and Water Supply

The streams entering the valley on the east side produce the major runoff to the valley. Rainfall runoff occurs principally during the period December to April, while snowmelt is the source during the spring and summer seasons from March through June. During the summer and fall seasons, runoff is a combination of flows from perennial tributaries and releases from reservoir storage.

Runoff Comparisons

Runoff conditions from year to year for a particular stream are compared to the mean runoff for that stream over a long period of time. The mean runoff is a base or normal used to compare runoff with any other year. Flow conditions on all major streams entering the valley are affected by man-made impairments such as reservoirs and diversions; therefore, the runoff comparisons are made with computed natural runoff which allows for effects of impairments. These computed natural or unimpaired runoffs are considered to be the flows that would occur if no impairments were above the points of measurement. Runoff normals are computed for the 50-year period October 1907 through September 1957.

The annual unimpaired runoff in percent of average for the 50-year normal for the period 1923 through 1963 on the major streams tributary to the San Joaquin Valley is shown in Table 4. The monthly unimpaired runoff for 1963 in percent of average based on the same 50-year period is shown for the same streams in Table 5.

The water supply available during the 1963 season was above normal on all major tributaries with the exception of the Tule River which was 89 percent of normal.

TABLE 4

ANNUAL UNIMPAIRED RUNOFF
(In percent of average^(a))

Water Year	Stanislaus River below Melonea P. H.	Tuolumne River near La Grange	Merced River at Exchequer	San Joaquin River below Friant	San Joaquin River near Vernalis (b)	Kings River Inflow to Pine Flat	Kaweah River near Three Rivers	Tule River Inflow to Success	Kern River Inflow to Isabella
Average Annual Runoff (a)	1111	1803	943	1703	5560	1607	394	133	624
1922-23	101	99	100	97	99	97	92		
1923-24	23	30	27	26	27	24	26		
1924-25	111	107	97	85	99	80	82		
1925-26	54	62	64	68	63	65	56		
1926-27	123	114	115	118	117	123	123		
1927-28	86	84	78	68	79	60	52		
1928-29	46	55	52	52	52	53	57		
1929-30	66	64	54	52	59	54	55	-	53
1930-31	28	33	28	29	30	29	29	19	29
1931-32	122	117	118	121	119	130	132	104	112
1932-33	54	62	55	65	60	73	72	60	68
1933-34	39	45	38	41	41	41	33	15	37
1934-35	110	117	125	114	116	101	91	67	73
1935-36	119	120	123	110	117	117	124	129	120
1936-37	100	111	129	129	117	146	172	230	178
1937-38	184	190	220	216	202	204	221	267	206
1938-39	47	55	51	55	53	61	63	62	72
1939-40	126	123	116	112	119	111	130	159	111
1940-41	120	139	154	155	143	158	163	177	200
1941-42	134	132	136	133	133	125	125	102	120
1942-43	141	132	137	120	130	126	170	274	161
1943-44	61	73	73	70	69	73	80	77	93
1944-45	115	116	116	125	119	128	140	153	129
1945-46	106	105	100	102	104	100	90	71	104
1946-47	57	61	60	66	61	69	67	39	68
1947-48	80	78	73	71	76	62	66	48	53
1948-49	67	70	67	68	68	60	56	37	47
1949-50	97	86	76	77	84	80	76	47	70
1950-51	152	138	129	109	130	100	107	116	85
1951-52	172	170	166	179	173	178	209	241	223
1952-53	87	85	65	69	78	72	78	74	87
1953-54	80	80	71	75	77	81	78	67	81
1954-55	62	63	56	68	63	69	70	49	57
1955-56	169	183	179	179	177	158	184	157	140
1956-57	78	79	69	81	78	78	75	49	70
1957-58	151	147	150	155	150	153	162	168	169
1958-59	53	55	48	56	54	50	39	24	43
1959-60	54	59	51	49	53	44	46	36	45
1960-61	35	40	33	38	37	35	30	14	28
1961-62	89	98	98	113	101	115	103	66	106
1962-63	113	114	104	114	112	116	128	89	117

(a) Average unimpaired runoff in thousands of acre-feet computed from the 50-year period October 1907 through September 1957.

(b) Figures were computed from summations of unimpaired runoff at foothill stations on major tributaries only and do not include runoff from minor tributaries and from valley floor.

TABLE 5
MONTHLY UNIMPAIRED RUNOFF
(In percent of average)^(a)

Month		Stanislaus River below Melones P. H.	Tuolumne River near La Grange	Merced River at Exchequer	San Joaquin River below Friant	San Joaquin River near Vernalis (b)	Kings River Inflow to Pine Flat	Kaweah River near Three Rivers	Tule River Inflow to Success	Kern River Inflow to Isabella
October	Percent (c)	135	112	89	88	105	87	87	112	93
	Average	8	15	7	20	50	19	4	1	14
November	Percent	36	24	21	38	31	43	34	24	63
	Average	23	39	18	28	108	26	8	4	18
December	Percent	35	31	16	19	26	18	15	14	42
	Average	47	78	40	58	223	48	17	9	26
January	Percent	63	62	68	113	76	120	152	76	98
	Average	68	108	60	74	310	63	22	13	27
February	Percent	245	249	222	226	237	241	316	146	303
	Average	84	135	79	92	390	80	28	20	33
March	Percent	88	64	61	74	71	70	71	36	85
	Average	122	180	99	136	537	115	40	27	49
April	Percent	100	92	88	79	89	79	96	109	76
	Average	206	286	149	244	885	219	63	24	88
May	Percent	130	120	109	108	116	106	122	114	90
	Average	294	447	245	430	1416	431	102	22	148
June	Percent	103	124	115	126	120	129	132	98	128
	Average	189	372	182	392	1135	389	77	10	126
July	Percent	118	153	141	163	152	166	176	177	175
	Average	53	115	50	163	381	155	24	2	58
August	Percent	116	171	126	154	148	150	164	297	171
	Average	12	19	10	46	87	44	6	1	24
September	Percent	200	127	48	159	145	136	186	300	187
	Average	5	9	4	20	38	19	3	0.3	14
1962-63 Water Year										
	Percent	113	114	104	114	112	116	128	89	117
	Average	1111	1803	943	1703	5560	1607	394	133	624

(a) Average unimpaired runoff in thousands of acre-feet computed from the 50-year period October 1907 through September 1957.

(b) Figures were computed from summations of unimpaired runoff at foothill stations on major tributaries only and do not include runoff from minor tributaries and from the valley floor.

(c) Percent figures are preliminary figures supplied by Water Supply and Snow Surveys, Division of Operations.

Lakes and Reservoirs

There are 59 principal reservoirs in the State, of which 25 are located in the San Joaquin Valley area. These 25 have a total storage capacity of 4,727,520 acre-feet. The storage capacity, water in storage on October 1, 1962, and storage on October 1, 1963, in the major reservoirs in the San Joaquin Valley area are shown in Table 6. The quantity of water in storage in these 25 reservoirs at the end of the 1962-63 season was about 49 percent of the total storage capacity as compared to 36 percent at the end of the 1961-62 season.

TABLE 6

SUMMARY OF PRINCIPAL RESERVOIR STORAGE IN THE SAN JOAQUIN VALLEY

(In acre-feet)

Watershed	Reservoir	Total Capacity	In Storage Oct. 1, 1962	In Storage Oct. 1, 1963
<u>Stanislaus</u>	Relief	15,560	5,788	4,400
	Strawberry	18,270	10,429	10,480
	Melones	112,600	11,360	11,060
	Donnels	64,500	48,276	49,576
	Beardsley	97,500	88,141	83,296
	Tulloch	68,400	16,648	33,948
<u>Tuolumne</u>	Lake Eleanor	26,100	17,976	18,520
	Lake Lloyd	268,000	183,058	182,450
	Hetch Hetchy	360,400	277,410	289,461
	Don Pedro	290,000	88,000	174,920
	Turlock Lake	49,000	7,950	11,440
<u>Merced</u>	Lake McClure	289,000	37,674	63,750
<u>San Joaquin</u>	Crane Valley	45,400	25,240	24,800
	Lake Thomas A. Edison	125,000	106,570	101,360
	Florence Lake	64,600	16,690	31,020
	Mammoth Pool	122,700	51,360	17,490
	Huntington Lake	89,800	86,660	87,900
	Redinger Lake	35,000	18,780	8,600
	Shaver Lake	135,400	79,640	103,830
	Millerton Lake	520,500	146,000	205,000
<u>Kings</u>	Wishon	128,300	45,200	90,060
	Pine Flat	1,001,500	247,400	467,200
<u>Kaweah</u>	Terminus	150,000	2,880	8,460
<u>Tule</u>	Success	80,000	7,100	12,350
<u>Kern</u>	Isabella	570,000	95,100	217,030
TOTAL		4,727,530	1,721,330	2,308,401

Streamflow Measurements

The records of many of the stream-gaging stations reported in Appendix B are maintained and operated by agencies cooperating with the Department of Water Resources. The methods used by all cooperating parties are standardized and the results obtained are equally good.

During the 1963 season 46 of the total of 80 gaging stations on streams for which records are reported herein were maintained, operated, rated, computed, and compiled by the Department of Water Resources.

Recorders

An automatic water stage recorder is in operation at each gaging station in the San Joaquin Valley area. The continuous record of water surface elevation at each station serves two major purposes in the preparation of the data in this report, and assists in the planning of flood control projects. First, the water surface elevation (gage height) is a factor in determining the quantity of flow of the stream in

second-feet passing a given station. Second, the actual surface elevation at two adjacent stations on a stream afford the means of obtaining the water surface elevation at pumping plants along the stream between the stations. This information assists in the determination of the pumping head in order that the rate of diversion by the pumping plants can be obtained.

Ratings

A streamflow rating is made for each stream-gaging station. This rating gives the flow in second-feet for each gage height at the station. Normally, the gage-height-flow relation or rating is more or less permanent where there is a fixed channel and a fixed flow regimen at the station. The rating varies, however, where the bed of the channel consists of loose, shifting sand, where heavy weed growth accumulates as the season progresses, or where there may be backwater effects due to ice or other downstream conditions. In these latter cases more frequent measurements of flow are made to obtain accurate records of flows passing the station.

Use of Water for Irrigation

The prevailing warm temperatures and a prolonged frost-free period during the summer season in the San Joaquin Valley favors the profitable production of a wide variety of marketable crops.

The major irrigated crops in the San Joaquin Valley include rice, alfalfa, orchard fruits, nuts, grapes, cotton, corn, grain, flax, pasture grasses, and a large variety of truck crops.

Criteria

The number of diversion points measured on the major streams in the San Joaquin Valley may vary from year to year. The criteria for selecting points to be measured were established in 1960. At that time it was determined that by measuring only those diversion points which had an average of two hundred acre-feet per season based on the previous three years of diversion record, 50 percent of the field work could be eliminated and still 95 percent of the total water diverted could be measured.

Changes in crop pattern and the available water supply are major factors that influence the amounts of water diverted for irrigation purposes.

Irrigation Diversions

Measurements and records of diversions in 1963 included all the major points of diversion on the valley floor along the San Joaquin River and tributaries; along the Stanislaus, Tuolumne, and Merced Rivers, and Dry Creek tributary to Tuolumne River; and along the Tule River.

This report contains records for a total of 170 points of diversion. Table 7 shows, by streams, the number of points of diversion and the acre-feet diverted.

TABLE 7
SUMMARY OF DIVERSION POINTS AND TOTAL ACRE-FEET DIVERTED
Oct. 1, 1962-Sept. 30, 1963

Stream	Number Of Points Measured	Total Acre-feet Diverted
San Joaquin River		
Vernalis to Fremont Ford Bridge	39	169,800
Fremont Ford Bridge to Gravelly Ford (a)	16	865,800
Gravelly Ford to Friant Dam	24	9,583
Tuolumne River	22	14,630
Stanislaus River	23	43,170
Merced River	34	56,750
Dry Creek (Tributary to the Tuolumne River)	3	1,368
Tule River	7	52,470
TOTAL	170	1,212,571

(a) Records furnished by U. S. Bureau of Reclamation.

Waters diverted by Central Valley Project canals and east side irrigation districts are shown on Table B-95.

The monthly amount of water diverted at the individual points of diversion along all the streams covered in the San Joaquin Valley area is shown along with the total acre-feet diverted for the season in Appendix B, Tables B-86 through B-93 of this report. The monthly use in percentage of seasonal total is also shown. The location of each diversion point on a given stream is measured from the mouth of that stream, progressing upward by river-mile. References to left or right bank assume an orientation facing downstream.

All of the diversions are accomplished by pumping except for 18 by gravity. The records of diversion by gravity are obtained by means of canal ratings established by flow measurements. The records of pumping diversions are obtained in a few instances by means of canal rating but, in the main, are obtained by actual measurement of the pump discharge. Most of the pumps are electrically operated, making it possible to establish a relationship between water pumped and power input. Sufficient measurements are made to establish a rate of discharge for each pump, and the electric meters are read monthly to determine the power used.

The monthly amount of diversions in acre-feet by the large east side irrigation districts from the Stanislaus, Tuolumne, and Merced Rivers during the 1963 season is shown in Appendix E, Table B-94. The monthly amount of diversions in acre-feet by the Friant-Kern and Madera Canals from Friant Reservoir on the San Joaquin River is shown in Appendix B, Table B-95.

Fresno Slough and James Bypass normally convey excess flood flows from the Kings River into the San Joaquin River at a point above Mendota Dam, but during the irrigation season, San Joaquin River water is backed up through those channels by the Mendota Dam to afford irrigation supplies to the James and Tranquillity Irrigation Districts and to certain other diverters. The diversion data for these streams shown in Table B-87 were furnished by the U. S. Bureau of Reclamation.

Imported Water

Water is imported to the San Joaquin Valley from the Sacramento-San Joaquin Delta via the Delta-Mendota Canal. The amount of water diverted and its distribution for use are shown in Table B-95.

CHAPTER IV
GROUND WATER MEASUREMENTS

Introduction

The ground water resources of California have long been recognized as one of the major natural resources of the State. The ever-increasing rate of draft on the ground water basins makes the problems associated with the use and conservation of this resource numerous and complex, and the solution more urgent.

More than one-quarter of all the ground water pumped for irrigation in the United States is used in the San Joaquin Valley. Widespread pumping began about 1900 and, especially since 1940, has increased at an accelerated rate. In response to this heavy withdrawal, ground water levels in extensive areas of the valley have declined rapidly. The water level decline will continue as long as ground-water pumpage exceeds the natural and artificial recharge of the ground water basin.

Ground water occurs under confined and unconfined conditions in the San Joaquin Valley. In much of the western, central, and southeastern parts of the valley, three distinct ground water reservoirs are present. In downward succession there are (1) a body of unconfined and semiconfined fresh water in alluvial deposits of recent, Pleistocene, and possibly later Pliocene age overlying the Corcoran Clay Member of the Tulare Formation; (2) a body of fresh water confined beneath the Corcoran Clay Member which occurs in alluvial and lacustrine deposits of late Pliocene age or older; and (3) a body of saline connate water contained in marine sediments of middle Pliocene or older age which underlies the freshwater body throughout the area. (U. S. Geological Survey Water-Supply Paper 1618 Abstract.)

In much of the eastern part of the valley, especially in the area of the major streams, the Corcoran clay member is not present and ground water occurs as one fresh-water body to considerable depth. Ground water is replenished by infiltration of rainfall, by infiltration from streams, canals, and ditches, by underflow entering the valley from tributary streams and from canyons, and by infiltration of excess irrigation waters.

The ground-water storage capacity of the San Joaquin Valley to a depth of 200 feet has been estimated to be approximately 93 million acre-feet, equal to roughly 9 times the capacity of the present and proposed surface-water reservoirs in the valley.

All studies of ground-water problems and plans for solution of these problems have two factors in common: they must be founded upon records of water level measurements and quality analysis of water samples obtained over a period of years.

The Department of Water Resources began the collection of ground-water level data in 1930 in connection with special investigation of water resources of specific areas, and has gradually developed a continuous program of basic water level data collection. Through cooperative activities of the federal and local agencies, coordinated and augmented by the department, the program of annual, semiannual, and monthly measurements of ground-water levels has gradually expanded.

Scope

The area covered by this report and its geographical relation to the Central Valley Drainage Basin are shown on Plate B-1.

The areal scope of Appendix C of this volume is depicted on Plates C-1 through C-6. During the period July 1, 1962, to June 30, 1963, the San Joaquin Valley Branch of the Department of Water Resources obtained approximately 13,000 water level measurements on some 7,500 wells. The period of record for many of these wells ranges from one to over 40 years.

Basic Data

Because significant trends in water level fluctuations can be indicated by a representative sample, a selection was made of approximately 600 wells for which the records are presented in Appendix C of this volume. These wells, designated as selected wells, were chosen on the basis of a number of factors such as

areal distribution; length of water level record; frequency of measurements; conformity with respect to water level fluctuation in the ground water area; and availability of a log, mineral analysis, and/or production record. Table C-1 presents the water level measurements made from July 1, 1962, through June 30, 1963. This volume continues the records for those wells published in Bulletin 77-62 which fall within the boundary of the San Joaquin Valley area.

Processed Data

Hydrographs depicting average water level fluctuations in 19 selected ground water areas are presented on Plate C-7. Individual well hydrographs depicting graphically the fluctuation of water levels are shown on Plate C-8. These wells distributed among significant areas were selected insofar as possible to be representative of their respective areas.

A ground-water map showing lines of equal elevation of water in wells for spring of 1963 appears on Plate C-9. Where sufficient data are available, lines of equal elevation of water are shown for the unconfined or semiconfined aquifer, and the confined aquifer or pressure surface.

Maps showing the areas where the ground-water level changed five feet or more in the unconfined, semiconfined, and confined aquifers are presented in Plates C-1 and C-2.

Related Information

For some basins or areas, maps showing depth to ground water are also prepared. At appropriate times, commonly every five years, maps are prepared showing lines of equal change occurring in the water level in wells during the time intervals. These maps are available in the office of the San Joaquin Valley Branch of the Department of Water Resources, and will be presented in future reports.

Cooperative Programs

The Department of Water Resources has cooperative ground water programs with the U. S. Geological Survey, U. S. Bureau of Reclamation, Kern County, Kings County Water District, and the Poso Soil Conservation District.

Monthly Program

Approximately 350 selected wells are measured monthly and the resulting figures are published in a monthly summary report. These wells were selected as being representative of their respective areas. Most of the field work is done by cooperating agencies, while the department measures 36 of the 350 selected wells. The department compiles and publishes the collected field data in a monthly report. The water level measurements on the selected monthly wells are included in Appendix C of this volume.

Annual and Semiannual Programs

In Kern County approximately 1000 wells are measured semiannually under a cooperative agreement between the U. S. Bureau of Reclamation, the Kern County Surveyors office, and the Department of Water Resources, with approximately 500 additional water level measurements being made by the Kern County Land Company and made available to the department.

Maps of Kern County showing lines of equal depth to water and lines of equal elevation of water in wells are prepared for both spring and fall of each year.

In the Kings County Water District approximately 325 selected wells are measured semiannually by that agency and submitted to the department for use in preparation of ground water maps under a cooperative agreement. Ground water maps are prepared for both spring and fall showing lines of equal elevation of water in wells in the district.

In the Poso Soil Conservation District approximately 40 wells are measured by that agency and submitted to the department. Ground water maps are prepared for the district showing depth to water in wells in January and July.

Ground Water Conditions

Data are presented in this report for two zones or aquifers in nine of the 46 areas reported in Appendix C.

During the period July 1962 to June 1963, 28 areas in the San Joaquin Valley showed a rise in the unconfined and semiconfined aquifers. There was no change in one area, but in 13 other areas there was a decline. Six of the eleven areas for which the pressure surface is reported show a decline and five show a rise in the water level.

In the shallow zone the maximum declines occurred in the Vandalia Irrigation District and the Shafter-Wasco Irrigation District, where changes of 10.9 feet and 9.1 feet respectively are noted. The greatest rise in the shallow zone was 11.2 feet in the Lindsay-Strathmore Irrigation District. The maximum decline of 23.6 feet occurred in the Mendota-Huron area deep zone. The greatest rise in the deep zone was 23.5 feet in the Corcoran Irrigation District. In those areas for which water levels are based on a composite of shallow and deep zones, the main change was a decline of 6.8 feet in the Buena-Vista Water Storage District.

Table 8 presents a summary of ground water level data collected in the San Joaquin Valley by basin or area.

TABLE 8
SUMMARY OF GROUND WATER LEVEL DATA
COLLECTED IN THE SAN JOAQUIN VALLEY
July 1, 1962 - June 30, 1963

Ground Water Basin or Area	Number	Measuring Agency	Number of Wells Measured		
			Monthly	Fall 1962	Spring 1963
San Joaquin Valley	5-22.00				
South San Joaquin Irrigation District	5-22.05	South San Joaquin Irrigation District San Joaquin County		88	89 2
Oakdale Irrigation District	5-22.06	Oakdale Irrigation District	6	136	136
Modesto Irrigation District	5-22.07	Modesto Irrigation District			173
Turlock Irrigation District	5-22.08	Turlock Irrigation District			200
Merced Irrigation District	5-22.09	Merced Irrigation District			226
El Nido Irrigation District	5-22.10	Merced Irrigation District			29
Delta-Mendota Area	5-22.11	U.S. Bureau of Reclamation Department of Water Resources San Luis Canal Company San Joaquin County Panoche Water District	112	538 259	531 240 6
Chowchilla Water District	5-22.12	Chowchilla Water District U.S. Bureau of Reclamation	8	137 18	137 24
Madera Irrigation District	5-22.13	Madera Irrigation District U.S. Bureau of Reclamation Chowchilla Water District	13	214 36 4	210 40 4
West Chowchilla-Madera Area	5-22.14	Chowchilla Water District U.S. Bureau of Reclamation Madera Irrigation District	7	9 76 25	9 76 25
Fresno Irrigation District	5-22.15	Fresno Irrigation District Consolidated Irrigation District U.S. Bureau of Reclamation Madera Irrigation District Department of Water Resources	9 9	119 5 87 1 41	111 3 87 1 43
City of Fresno	5-22.16	City of Fresno	2	62	66

TABLE 8 (Continued)
SUMMARY OF GROUND WATER LEVEL DATA
COLLECTED IN THE SAN JOAQUIN VALLEY
July 1, 1962 - June 30, 1963

Ground Water Basin or Area	Number	Measuring Agency	Number of Wells Measured		
			Monthly	Fall 1962	Spring 1963
San Joaquin Valley (continued)					
Fresno Slough Area	5-22.17	Fresno Irrigation District	1		
		Consolidated Irrigation District		3	4
		U.S. Bureau of Reclamation	10	207	207
		Department of Water Resources		50	50
		U.S. Geological Survey	3		
Consolidated Irrigation District	5-22.18	Consolidated Irrigation District	11	71	72
Alta Irrigation District	5-22.19	Alta Irrigation District	8	160	160
		U.S. Bureau of Reclamation	1	49	49
		Orange Cove Irrigation District		6	6
Lower Kings River Area	5-22.20	Kaweah Delta Water Conservation District		6	6
		Consolidated Irrigation District		6	7
		U.S. Bureau of Reclamation		17	17
		Department of Water Resources	7		155
Orange Cove Irrigation District	5-22.21	Orange Cove Irrigation District		113	114
		U.S. Bureau of Reclamation	4	31	30
Stone Corral Irrigation District	5-22.22	U.S. Bureau of Reclamation	2	31	31
Ivanhoe Irrigation District	5-22.23	Ivanhoe Irrigation District		42	42
		U.S. Bureau of Reclamation	2		
Kaweah Delta Water Conservation District	5-22.24	Kaweah Delta Water Conservation District		133	115
		Tulare Irrigation District		5	15
		Lindmore Irrigation District		7	7
		U.S. Bureau of Reclamation	12	14	32
		Department of Water Resources		79	86
Tulare Irrigation District	5-22.25	U.S. Bureau of Reclamation	5	10	14
		Tulare Irrigation District		105	96
Exeter Irrigation District	5-22.26	Exeter Irrigation District	1	78	78
		U.S. Bureau of Reclamation	2	3	3
Lindsay-Strathmore Irrigation District	5-22.27	Lindsay-Strathmore Irrigation District		21	21
		Lindmore Irrigation District		3	3
		U.S. Bureau of Reclamation	2		
Lindmore Irrigation District	5-22.28	Lindmore Irrigation District		170	170
		Porterville Irrigation District		4	4
		Exeter Irrigation District		2	2
		U.S. Bureau of Reclamation	4	17	18
Porterville Irrigation District	5-22.29	Porterville Irrigation District		22	22
		Lower Tule River Irrigation District		3	3
		U.S. Bureau of Reclamation	3	6	7
Lower Tule River Irrigation District	5-22.30	Lower Tule River Irrigation District		175	174
		Saucelito Irrigation District		5	2
		U.S. Bureau of Reclamation	5	13	17
Vandalia Irrigation District	5-22.31	Department of Water Resources			5
		U.S. Bureau of Reclamation	2		
Saucelito Irrigation District	5-22.32	Saucelito Irrigation District		45	48
		U.S. Bureau of Reclamation	4		
Pixley Irrigation District	5-22.33	Lower Tule River Irrigation District		1	2
		U.S. Geological Survey	3		
		U.S. Bureau of Reclamation	7	81	81
Alpaugh-Allensworth Area	5-22.34	U.S. Bureau of Reclamation	6	35	30
		Delano-Earlimart Irrigation District		63	52

TABLE 8 (Continued)
SUMMARY OF GROUND WATER LEVEL DATA
COLLECTED IN THE SAN JOAQUIN VALLEY
July 1, 1962 - June 30, 1963

Ground Water Basin or Area	Number	Measuring Agency	Number of Wells Measured		
			Monthly	Fall 1962	Spring 1963
San Joaquin Valley (continued)					
Delano-Earlimart Irrigation District	5-22.35	Delano-Earlimart Irrigation District		102	65
		U.S. Geological Survey	4		
		U.S. Bureau of Reclamation	1	53	53
Southern San Joaquin Municipal Utility District	5-22.36	Southern San Joaquin Municipal Utility District		65	65
		U.S. Geological Survey	6		
		Delano-Earlimart Irrigation District		4	4
		Kern County Land Company		8	8
North Kern Water Storage District	5-22.37	U.S. Bureau of Reclamation		7	8
		Kern County Land Company		182	182
		Department of Water Resources		12	
Shafter-Wasco Irrigation District	5-22.38	U.S. Geological Survey	4		
		Shafter-Wasco Irrigation District		74	74
		U.S. Bureau of Reclamation		6	6
		Kern County Land Company		30	30
City of Bakersfield	5-22.39	U.S. Geological Survey	3		
		California Water Service			32
Kern River Delta Area	5-22.40	Shafter-Wasco Irrigation District		6	6
		Kern County Surveyor		125	104
		Buena Vista Water Storage District	6		
		U.S. Bureau of Reclamation	11	77	77
		Kern County Land Company		201	201
Edison-Maricopa Area	5-22.41	Kern County Land Company		32	32
		U.S. Geological Survey	12		
		Kern County Surveyor		36	33
		U.S. Bureau of Reclamation		195	206
		Department of Water Resources		105	94
Buena Vista Water Storage District	5-22.42	Buena Vista Water Storage District	28		
		Kern County Land Company		6	6
		U.S. Geological Survey	6		
		Kern County Surveyor		23	18
Semitropic Water Storage District	5-22.43	U.S. Bureau of Reclamation		56	56
		Kern County Surveyor		117	99
		U.S. Geological Survey	11		
		Kern County Land Company		25	25
		Buena Vista Water Storage District	4		
Avenal-McKittrick Area	5-22.44	U.S. Geological Survey	2		
		Department of Water Resources			189
Tulare Lake-Lost Hills Area	5-22.45	Kern County Surveyor			12
		Department of Water Resources			190
		U.S. Geological Survey	4		
Corcoran Irrigation District	5-22.46	Kaweah Delta Water Conservation District		1	1
		Department of Water Resources	3		
Mendota-Huron Area	5-22.47	U.S. Geological Survey	14		
		U.S. Bureau of Reclamation		44	48
		Department of Water Resources			650
Poso Soil Conservation District	5-22.48	Poso Soil Conservation District	25		
		San Luis Canal Company	11		
Terra Bella Irrigation District	5-22.50	U.S. Bureau of Reclamation	3	33	25

Table 9 presents the average change in ground water levels, spring 1962 to spring 1963, and the wells showing the maximum and minimum depth to ground water in the spring of 1963, for each basin or area.

The average change in water level for each basin or area was determined where possible by planimetering ground water contour maps. In areas where insufficient data were available to define reliable contours, a numerical average was made from the actual well measurements.

TABLE 9
AVERAGE CHANGE IN GROUND WATER LEVELS IN
BASINS AND AREAS IN THE SAN JOAQUIN VALLEY
Spring 1962 - Spring 1963

Ground Water Basin or Area		Number of Wells Considered in Analysis	Average Change in Ground Water Level 1962 to 1963 (in feet)	Location and Recorded Maximum and Minimum Depth to Water in the Spring of 1963 (In feet)	
Name	Number			Maximum	Minimum
San Joaquin Valley	5-22.00				
South San Joaquin Irrigation District	5-22.05	<u>1</u> /	-0.3	02S/08E-01M01 28.7	01S/07E-21R01 5.9
Oakdale Irrigation District	5-22.06	<u>1</u> /	+3.2	02S/11E-28J01 143.8	02S/10E-10E01 6.6
Modesto Irrigation District	5-22.07	<u>1</u> /	-0.5	03S/10E-32G01 56.6	03S/07E-36C01 5.2
Turlock Irrigation District	5-22.08	158	+2.0	06S/10E-26N01 14.9	05S/09E-07N01 2.8
Merced Irrigation District	5-22.09	<u>1</u> /	+0.6	07S/13E-04D01 23.1	08S/13E-03N01 2.1
El Nido Irrigation District	5-22.10	<u>1</u> /	+0.9	09S/13E-23H01 87.1	09S/14E-21C01 63.7
Delta-Mendota Area	5-22.11	457	-1.2	12S/11E-36Q01 396.5	08S/10E-31C01 0.1
Chowchilla Water District	5-22.12	<u>1</u> /	+3.9	09S/16E-27A01 87.0	09S/16E-33E01 38.5
Madera Irrigation District	5-22.13	<u>1</u> /	+1.5	12S/18E-05C01 85.7	13S/17E-07J03 29.0
West Chowchilla-Madera Area	5-22.14	<u>1</u> /	-1.5	10S/14E-08B01 77.2	10S/13E-35K01 5.2
Fresno Irrigation District	5-22.15	<u>1</u> /	+0.9	12S/21E-19D01 94.9	14S/23E-04G01 12.6
City of Fresno	5-22.16	<u>1</u> /	+0.3	14S/20E-02B01 85.6	14S/20E-15M01 61.4
Fresno Slough Area	5-22.17	<u>1</u> /	-5.0	15S/16E-29P01 196.0	14S/16E-28N01 11.0
Consolidated Irrigation District	5-22.18	<u>1</u> /	+0.5	16S/19E-14A01 74.7	17S/22E-01C01 19.8
Alta Irrigation District	5-22.19	<u>1</u> /	+5.4	14S/23E-25N01 69.5	14S/23E-02E01 10.1
Lower Kings River Area	5-22.20	<u>1</u> /	+1.6	20S/21E-04M01 172.1	19S/19E-25A01 4.5
Orange Cove Irrigation District	5-22.21	<u>1</u> /	+6.5	15S/24E-26J01 75.2	14S/24E-27F01 2.0
Stone Corral Irrigation District	5-22.22	<u>1</u> /	+9.4	17S/25E-12D01 49.2	16S/26E-32R01 0.8
Ivanhoe Irrigation District	5-22.23	<u>1</u> /	+1.9	17S/25E-26C01 89.3	17S/26E-21D02 26.1
Kaweah-Delta Water Conservation District	5-22.24	<u>1</u> /	+3.2	20S/22E-10C01 121.2	18S/26E-14D01 5.5
Tulare Irrigation District	5-22.25	<u>1</u> /	+5.4	20S/23E-18C01 120.9	19S/25E-17J01 59.2

TABLE 9 (Continued)

AVERAGE CHANGE IN GROUND WATER LEVELS IN
BASINS AND AREAS IN THE SAN JOAQUIN VALLEY
Spring 1962 - Spring 1963

Ground Water Basin or Area		Number of Wells Considered in Analysis	Average Change in Ground Water Level 1962 to 1963 (In feet)	Location and Recorded Maximum and Minimum Depth to Water in the Spring of 1963 (In feet)	
Name	Number			Maximum	Minimum
San Joaquin Valley (continued)					
Exeter Irrigation District	5-22.26	<u>1</u> /	+9.9	19S/26E-13R01 106.0	18S/26E-24B01 20.9
Lindsay-Strathmore Irrigation District	5-22.27	<u>1</u> /	+11.2	19S/26E-36F01 93.9	20S/27E-15R01 3.1
Lindmore Irrigation District	5-22.28	<u>1</u> /	+8.6	20S/26E-28R02 126.0	21S/27E-03K01 39.0
Porterville Irrigation District	5-22.29	<u>1</u> /	+5.4	21S/27E-29H01 87.4	21S/27E-34J01 16.2
Lower Tule River Irrigation District	5-22.30	<u>1</u> /	+2.4	22S/24E-14R01 160.0	21S/26E-09N02 27.0
Vandalia Irrigation District	5-22.31	8	-10.9	22S/27E-13C01 158.9	22S/28E-18A01 120.2
Saucelito Irrigation District	5-22.32				
Unconfined Aquifer		<u>1</u> /	+8.3	22S/26E-13R01 146.7	22S/26E-09B01 116.0
Pressure Surface		<u>1</u> /	+10.6	22S/26E-32E01 201.5	22S/26E-05P01 126.1
Pixley Irrigation District	5-22.33				
Unconfined Aquifer		<u>1</u> /	-2.8	22S/25E-19A04 136.7	23S/24E-16J01 57.9
Pressure Surface		<u>1</u> /	-6.7	22S/25E-36H01 211.2	23S/24E-29H01 105.1
Alpaugh-Allensworth Area	5-22.34				
Unconfined Aquifer		<u>1</u> /	-4.5	24S/25E-17P01 130.0	24S/23E-21B02 47.2
Pressure Surface		<u>1</u> /	+3.0	24S/24E-20R01 193.0	24S/23E-22A01 117.0
Delano-Earlimart Irrigation District	5-22.35				
Unconfined Aquifer		<u>1</u> /	-2.5	24S/26E-29R02 161.0	24S/25E-25P01 65.0
Pressure Surface		<u>1</u> /	+3.9	24S/26E-25H01 349.0	24S/25E-22R01 125.0
Southern San Joaquin Municipal Utility District	5-22.36				
Unconfined Aquifer		<u>1</u> /	+8.3	25S/26E-28H02 204.4	25S/24E-12D02 64.0
Pressure Surface		<u>1</u> /	+5.1	25S/26E-23Q01 350.0	25S/26E-18M01 134.8
North Kern Water Storage District	5-22.37				
Unconfined Aquifer		<u>1</u> /	+0.7	28S/26E-16L01 214.0	26S/25E-28A01 78.0
Pressure Surface		<u>1</u> /	-15.2	27S/26E-20D01 302.0	26S/25E-09P01 157.8
Shafter-Wasco Irrigation District	5-22.38				
Unconfined Aquifer		<u>1</u> /	-9.1	27S/25E-06N02 190.5	28S/26E-31J01 131.5
Pressure Surface		<u>1</u> /	-14.8	27S/25E-20A01 210.5	26S/24E-33R01 171.5

TABLE 9 (Continued)

AVERAGE CHANGE IN GROUND WATER LEVELS IN
BASINS AND AREAS IN THE SAN JOAQUIN VALLEY
Spring 1962 - Spring 1963

Ground Water Basin of Area		Number of Wells Considered in Analysis	Average Change in Ground Water Level 1962 to 1963 (In feet)	Location and Recorded Maximum and Minimum Depth to Water in the Spring of 1963 (In feet)	
Name	Number			Maximum	Minimum
San Joaquin Valley (continued)					
City of Bakersfield	5-22.39	27	-11.2	29S/28E-17R01 300.0	29S/28E-19D01 95.0
Kern River Delta Area	5-22.40	<u>1</u> /	-3.7	28S/24E-23D03 171.2	31S/28E-29B01 12.0
Edison-Maricopa Area	5-22.41				
Pressure Surface		<u>1</u> /	-11.4	11N/20W-14B01 571.0	32S/25E-20G01 101.5
Buena Vista Water Storage District	5-22.42	<u>1</u> /	-6.8	27S/22E-08R01 112.5	30S/23E-01C01 28.7
Semitropic Water Storage District	5-22.43				
Unconfined Aquifer		<u>1</u> /	+0.6	25S/24E-08H01 147.0	28S/23E-03R01 29.0
Pressure Surface		<u>1</u> /	-1.0	27S/23E-08G01 217.5	25S/23E-07A01 103.0
Avenal-McKittrick Area	5-22.44	46	+0.9	26S/18E-16E01 244.2	24S/20E-14C01 15.9
Tulare Lake-Lost Hills Area	5-22.45	21	+1.3	21S/20E-09M01 246.1	24S/20E-14C01 15.9
Corcoran Irrigation District	5-22.46				
Unconfined Aquifer		<u>1</u> /	+8.9	21S/22E-02H01 95.4	21S/22E-08M01 13.0
Pressure Surface		<u>1</u> /	+23.5	21S/21E-13A01 187.9	20S/22E-20A01 96.6
Mendota-Huron Area	5-22.47				
Pressure Surface		<u>1</u> /	-23.6 <u>2</u> /	17S/15E-30M01 805.4	15S/16E-23P01 105.9
Poso Soil Conservation District	5-22.48	<u>1</u> /	-1.2	12S/14E-08P01 13.0	11S/12E-22N01 1.8
San Luis Canal Company	5-22.49	<u>1</u> /	+0.6	10S/12E-08A01 15.2	10S/11E-16R01 1.0
Terra Bella Irrigation District	5-22.50	5	0.0	23S/27E-10H01 229.5	23S/27E-01A01 75.6

1/ Averages were determined by planimetering ground water contour maps.

2/ Change determined from water level measurements made March 1962 and December 1962.

Table 10 presents the change in average ground water levels from 1921 to 1951 and 1951 to 1963 in nineteen historic ground water areas in the San Joaquin Valley.

TABLE 10
CHANGE IN AVERAGE GROUND WATER LEVEL FROM
1921 to 1951 and 1951 to 1963
IN NINETEEN GROUND WATER AREAS IN THE SAN JOAQUIN VALLEY

Name of Ground Water Area	Area in Square Miles	Irrigation and Other Water Districts Included in the Ground Water Area	Net Change in Water Level 1921-51 ^{1/} (In feet)	Net Change in Water Level 1951-63 ^{2/} (In feet)
Madera	342.6	Madera Irrigation District, Chowchilla Water District	-24.1 ^{3/}	-14.5
Fresno	404.0	Fresno Irrigation District	-22.4	-16.9
Consolidated	243.0	Consolidated Irrigation District	-19.0	-10.5
Fresno, Consolidated and Outside	700.1	Fresno Irrigation District, Consolidated Irrigation District	-23.2	-15.1
Outside Only	53.1	-----	-25.6	-28.6
Centerville Bottoms	18.1	-----	+ 1.0	+ 3.0
Alta	190.9	Alta Irrigation District	-17.2 ^{3/}	- 5.1
Ivanhoe	17.4	Ivanhoe Irrigation District	-55.9	+10.3
Outside Ivanhoe	76.6	Part of Alta Irrigation District, Stone Corral Irrigation District	-28.5	- 3.0
Mill Creek	128.2	-----	-31.1	-16.4
Tulare	121.1	Tulare Irrigation District	-59.1	- 7.3
Elk Bayou	67.6	-----	-47.8	-15.1
Lindsay-Exeter	136.4	Exeter Irrigation District, Lindsay-Strathmore Irrigation District, Lindmore Irrigation District	-77.7	+48.3
Tule River	156.6	Porterville Irrigation District, most of Lower Tule River Irrigation District, part of Saucelito Irrigation District	-62.5	+15.0
Lower Deer Creek	162.2	Part of Lower Tule River Irrigation District, most of Saucelito Irrigation District, part of Delano-Earlimart Irrigation District	-106.7	- 9.9 ^{4/} -10.8 ^{5/}
Middle Deer Creek	54.6	Terra Bella Irrigation District	-61.8	-13.2 ^{4/} -37.5 ^{5/}
Delano-Earlimart	140.0	Most of Delano-Earlimart Irrigation District, small part of South San Joaquin Municipal Utility District	-133.8	+ 1.4 ^{4/} - 7.8 ^{5/}
McFarland-Shafter	306.0	Southern San Joaquin Municipal Utility District, North Kern Water Storage District, Shafter-Wasco Irrigation District	-99.0	- 4.0 ^{4/} -21.4 ^{5/}
Rosedale	78.9	-----	-36.3	-60.4
Arvin-Edison	205.2	Arvin-Edison Water Storage District	-69.9 ^{6/}	-19.0 ^{5/}

^{1/} 1951 was the first year of substantial deliveries from the Friant-Kern Canal.

^{2/} Fall of 1951 to spring of 1963.

^{3/} Fall of 1929 to fall of 1951.

^{4/} Spring 1961 to spring 1963, unconfined aquifer.

^{5/} Spring 1961 to spring 1963, confined aquifer; only one aquifer reported prior to 1961.

^{6/} Fall 1941 to fall 1951.

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CHAPTER V
SURFACE WATER QUALITY

Introduction

The Department of Water Resources maintains a program of surveillance of the quality of water to detect any degradation of the surface waters of California due to contributions of wastes by agricultural, industrial, and municipal water users and to notify the proper control agencies of any such occurrences. The Surface Water Quality Monitoring Program was initiated to meet this surveillance need in April 1951 with the following objectives: (1) to determine the quality of the State's surface waters through a network of strategically located sampling stations representative of the major surface streams and lakes; (2) to detect changes in the quality of surface waters and notify control agencies of adverse changes; (3) to determine trends in surface water quality; and (4) to compile data into readily available form for distribution to cooperators and interested agencies.

Scope

The areal extent of activities discussed in this chapter and in Appendix D is shown on Plate D-1. Data on the quality of surface waters are presented in graphs and tables in Appendix D for the 1963 water year (October 1, 1962, to September 30, 1963). These data represent the observed physical, chemical, bacteriological, and radiological characteristics of water collected at the surface water quality stations shown also on Plate D-1. The stations are listed alphabetically in Table D-1 and are listed in Table 11 by river units within the valley's two drainage basins, the San Joaquin River Basin and the Tulare Lake Basin.

Sampling Program

The Department of Water Resources has 29 surface water quality monitoring stations in the San Joaquin Valley area. Of these, 19 are sampled monthly, eight quarterly, and the remaining two semiannually. The variation in the sampling frequency is dependent upon past records, need, and the type of data required.

The U. S. Army Corps of Engineers and the City and County of San Francisco (Oakdale office) cooperate by the collection of samples obtained at nine and five stations, respectively.

Station Sampling

Sampling at each station consists of obtaining water samples for partial mineral and bacteriological analyses and field data including pH, temperature, gage height, and dissolved oxygen determination. The samples collected in May and September are subject to: (1) complete mineral analysis, (2) bacteriological analysis, (3) radiological analysis, and (4) determination of concentrations of phosphate, arsenic, and detergents (alkyl benzene sulfonate-ABS). A heavy metal sample is collected twice a year at ten selected stations for spectrographic analysis. The results of the spectrographic analyses for the ten stations are contained in Table D-32.

Conductivity Recorders

Conductivity recorders are installed at selected surface water stations to obtain continuous records of the specific electrical conductance of the waters. The recorder charts are removed, edited, and processed at the end of each month. The data are converted and tabulated into mean hourly and weekly electrical conductivity values. A plot of the mean weekly values versus time for each of these stations is shown on Plate D-2.

Information from these recorders is used to approximate concentrations of several water quality parameters, including concentrations of total dissolved solids (TDS), chlorides, sulfates, and total hardness. These approximations are possible because of the relationship between specific conductance and each of the above parameters.

TABLE 11

SURFACE WATER QUALITY MONITORING STATIONS BY DRAINAGE BASINS

<u>SAN JOAQUIN RIVER BASIN</u>	<u>Station number</u>
San Joaquin River Unit	
San Joaquin River near Vernalis	27
San Joaquin River at Maze Road Bridge	26a
San Joaquin River near Grayson	26
San Joaquin River at Patterson Bridge	27a
San Joaquin River at Crows Landing Bridge	26b
San Joaquin River at Hills Ferry Bridge	25b
San Joaquin River at Fremont Ford Bridge	25c
San Joaquin River near Mendota	25
San Joaquin River at Friant Dam	24
Salt Slough at San Luis Ranch (near Los Banos)	24c
Delta-Mendota Canal	
Delta-Mendota Canal near Tracy	93
Delta-Mendota Canal near Mendota	92
Stanislaus River Unit	
Stanislaus River near Mouth	29
Stanislaus River below Tulloch Dam	29a
Tuolumne River Unit	
Tuolumne River at Tuolumne City	31
Tuolumne River at Hickman-Waterford Bridge	30
Tuolumne River below Don Pedro Dam	31a
Merced River Unit	
Merced River near Stevinson	32
Merced River below Exchequer Dam	32a
Chowchilla River Unit	
Chowchilla River near Raymond	113
Fresno River Unit	
Fresno River near Daulton	114
<u>TULARE LAKE BASIN</u>	
Kings River Unit	
Kings River below Peoples Weir	34
Kings River below Pine Flat Dam	33b
Kings River below North Fork	33c
Big Creek above Pine Flat Dam	33d
Kaweah River Unit	
Kaweah River below Terminus Dam	35
Tule River Unit	
Tule River below Success Dam	91
Kern River Unit	
Kern River near Bakersfield	36
Kern River below Isabella Dam	36a
Kern River near Kernville	36b

CHAPTER VI
GROUND WATER QUALITY

Introduction

Water development to meet the needs of California's phenomenal growth is one of the major problems facing the State. Although the use of ground water has been, and is, one of the major factors contributing to the economy of the State, insufficient data are available regarding the mineral quality of such ground water supplies. The present widespread dependence upon ground water requires constant vigilance, coupled with remedial action where necessary, to assure that the quality of ground water remains suitable for all intended uses. In view of this need, a statewide program of observation and study of ground water quality was initiated by the Department of Water Resources in 1953.

Scope

The areal scope of the activities discussed in this chapter and in Appendix E of this volume is shown on Plate E-1. Approximately 415 wells were sampled throughout the San Joaquin Valley, Panoche Valley, Tehachapi Valley and Cummings Valley. Panoche Valley was added to the monitoring program in 1960 as part of the continuing study of ground water basins of California. Tehachapi and Cummings Valleys were added in 1963 subsequent to a report by the Department of Water Resources on "A Water Supply for the Tehachapi Institution for Men," August 1961, which established the need for ground water quality data in the area. The location of the monitored wells for 1963 are shown on Plate C-3, "Location of Selected Wells."

Ground Water Quality Conditions

Adequate monitoring of the quality of a ground water basin requires the establishment of norms from which deviations can be determined. Considerable information has been gathered during the early years of this program and through other programs where ground water quality data were collected to assist in establishing the norms. Individual wells for the monitoring program were selected by an evaluation of well drillers' logs, water analyses, and water level data to best represent the quality of the ground water in the surrounding area. The number of wells needed to satisfy this objective was mainly determined by the complexity of the ground water basin in a given area. The analyses of samples collected from selected wells in the San Joaquin Valley for the 1963 water year are contained in this report. Included are tables of complete and partial mineral analyses, heavy metal and radiological determinations. The type of analysis made on a sample from a well is based mainly on the history of the data on that well.

Data collected during the 1963 water year were used to determine the quality of the main body of ground water in the San Joaquin Valley area. Plates E-2 and E-3 show the areal distribution of ground water quality characteristics in the San Joaquin Valley area. Plate E-2, "Lines of Equal Electrical Conductivity in Ground Water," depicts the variation in the concentration of dissolved minerals in ground water, as measured by electrical conductivity. Plate E-3, "Mineral Types of Ground Water," shows the areal variation of the chemical character of ground water in the San Joaquin Valley. The chemical character classification is determined by the predominant cation and anion. Wells that deviate from the norm for the reporting period are listed on Table 12.

Samples of various wells throughout the valley, especially on the west side, indicate increasing electrical conductivity (EC). This could be caused by many factors: pollution by highly mineralized waste discharges, heavy pumping in the deep zones causing connate waters to be drawn up, and/or heavy pumping in the shallow zones causing a drawdown of percolating irrigation and drainage waters containing high salts. On the other hand, importation of good quality water often reduces the concentration of salts by dilution in shallow aquifers and by reduction of ground water withdrawal.

High concentrations of nitrates occur in various places throughout the valley, both naturally and as a result of pollution. Pollution abatement in this regard is important; however, the differentiation between natural nitrates and nitrates resulting from pollution is difficult. Lithium, a relatively rare constituent of ground water, usually appears in very small quantities. In concentrations greater than

Table 12

WELLS INDICATING SIGNIFICANT DEVIATION IN QUALITY FROM SURROUNDING AREA

WELL NUMBER USE	DEVIATION	STATUS
--------------------	-----------	--------

Merced Irrigation District

7S/15E - 30E1-M Irrigation	EC ¹ = 676 Area EC = 300-400	Investigation underway
-------------------------------	--------------------------------------------	------------------------

Delta Mendota Area

9S/9E - 2L1-M Irrigation & stock	EC increasing from 964 in 1961 to 2050 in 1963	Investigation underway
-------------------------------------	------------------------------------------------------	------------------------

Madera Irrigation District

13S/17E - 5P1-M Irrigation	Radioactivity ² = 61.6 ± 5.6^3	Investigation underway
-------------------------------	-----------------------------------------------	------------------------

Fresno Irrigation District

13S/17E - 22B1-M Irrigation	NO ₃ ⁴ = 25 ppm ⁵ Area NO ₃ = <10.0 ppm	Current investigation on this area underway
13S/19E - 24Q1-M Irrigation	1955 EC = 2763 1963 EC = 990	This well was previously polluted and was included in an investigation on the pollutant in 1955. The subsequent pollution abatement is the reason for EC reduction
13S/19E - 32M1-M Domestic	EC increasing from 486 in 1952 to 832 in 1963	Current investigation on this area underway

Fresno Slough Area

16S/17E - 10G-M Irrigation	Radioactivity = 68.5 ± 5.8	Possible result of radio- active waste discharge - Investigation underway
-------------------------------	--------------------------------	---------------------------------------------------------------------------------

-
- 1 - EC = Electrical Conductivity in micromhos
 2 - Radioactivity in picocuries per liter
 3 - $\pm X$ is statistical deviation (0.9 confidence level)
 4 - NO₃ = Nitrates
 5 - ppm = parts per million
 6 - value not exact due to interference in determination
 7 - ABS = Alkyl-Benzene-Sulfonate (Detergents)

Table 12

WELLS INDICATING SIGNIFICANT DEVIATION IN QUALITY FROM SURROUNDING AREA

WELL NUMBER USE	DEVIATION	STATUS
--------------------	-----------	--------

Alta Irrigation District

17S/23E - 8H1-M Domestic	NO ₃ = 40 ppm Area NO ₃ = <10 ppm	Current investigation on this area underway
-----------------------------	------------------------------------------------------------	------------------------------------------------

Lower Kings River Area

20S/21E - 12A1-M Domestic	EC increasing steadily from 826 in 1958 to 1400 in 1963	Investigation underway
------------------------------	---------------------------------------------------------------	------------------------

Edison-Maricopa Area

32S/29E - 35M2-M Irrigation	NO ₃ = 159 ppm Area NO ₃ = <10 ppm	Investigation of this area to be conducted during 1964-65
--------------------------------	-------------------------------------------------------------	-----------------------------------------------------------------

Semitropic Water Storage District

28S/23E - 25P1M Irrigation	EC increasing steadily from 267 in 1956 to 537 in 1963	Investigation underway
-------------------------------	--------------------------------------------------------------	------------------------

Avenal-McKittrick Area

26S/18E - 1A-M Irrigation	Lithium ⁶ = <3.8 ppm	Resampling to determine a more exact value
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Tulare Lake-Lost Hills Area

23S/21E - 18D1-M Artesian - Irrigation	Total analysis high EC = 11,700	Previous investigation on this well. Presently monitored as a result of that study.
-------------------------------------------	------------------------------------	----------------------------------------------------------------------------------------------

24S/22E - 35N1-M Irrigation & stock	Arsenic = 0.25 ppm Copper = 1.00 ppm	Investigation underway
----------------------------------------	-----------------------------------------	------------------------

-
- 1 - EC = Electrical Conductivity in micromhos
 - 2 - Radioactivity in picocuries per liter
 - 3 - $\pm X$ is statistical deviation (0.9 confidence level)
 - 4 - NO₃ = Nitrates
 - 5 - ppm = parts per million
 - 6 - value not exact due to interference in determination
 - 7 - ABS = Alkyl-Benzene-Sulfonate (Detergents)

Table 12

WELLS INDICATING SIGNIFICANT DEVIATION IN QUALITY FROM SURROUNDING AREA

WELL NUMBER USE	DEVIATION	STATUS
Mendota Huron Area		
13S/14E - 34M1-M Domestic & irrigation	EC decreasing steadily from 5350 in 1951 to 4670 in 1963	Investigation underway
Stanislaus Plains		
3S/12E - 26P1-M	EC = 4300 Area EC = 200 to 300	Natural gas well - previous investigation on local gas wells resulted with this well being monitored
North Tulare Plains		
18S/26E - 10N1-M Irrigation	NO ₃ = 78 ppm Area NO ₃ = < 10 ppm	Investigation underway
South Tulare Plains		
21S/27E - 27F1-M	ABS ⁷ = 0.44 ppm	Investigation underway
Kern Plains		
26S/27E - 9G1-M	Lithium = 0.2 ppm	Investigation undersay

1 - EC = Electrical Conductivity in micromhos

2 - Radioactivity in picocuries per liter

3 - $\pm X$ is statistical deviation (0.9 confidence level)

4 - NO₃ = Nitrates

5 - ppm = parts per million

6 - value not exact due to interference in determination

7 - ABS = Alkyl-Benzene-Sulfonate (Detergents)

0.1 part per million, however, lithium has been found to be detrimental to citrus and other fruit trees in much the same manner as boron. Arsenic and copper, although generally rare, also are found in some ground waters of the valley and can be significant in small concentrations.

Detergents (ABS: alkyl benzene sulfonate) have been determined to be an indicator of pollution and therefore should not occur in ground water. For this reason ABS determinations are made on samples from wells in the vicinity of sewage or industrial waste discharges. Although no critical values of radioactivity have been reached in the valley, certain wells have had higher than normal values. These could be naturally occurring conditions or pollution from radioactive sources.

Sampling Program

Samples from the monitored areas are collected from early spring, when pumping begins, through the fall, when pumping generally slows down. Most of the samples collected are obtained by cooperating agencies, the remainder being obtained by the department. Table 13 lists the agency, the corresponding area, and the number of wells sampled by that agency.

TABLE 13

COOPERATING AGENCIES GROUND WATER QUALITY MONITORING PROGRAM SAN JOAQUIN VALLEY AREA

<u>Agency</u>	<u>Area</u>	<u>No. of Samples</u>
Stanislaus County Farm Advisor	Stanislaus County	15
Turlock Irrigation District	Turlock Irrigation District	21
Merced Irrigation District	Merced Irrigation District	15
Central California Irrigation District	Central California Irrigation District	27
Fresno Irrigation District	Fresno Irrigation District	6
Kings County Farm Advisor	Kings County	28
Tulare County Farm Advisor	Tulare County	23
Kern County Farm Advisor	Kern County	60
Buena Vista Water Storage District	Buena Vista Water Storage District	10
U. S. Geological Survey	Portions of Fresno and Kings Counties	59



APPENDIX A

CLIMATE

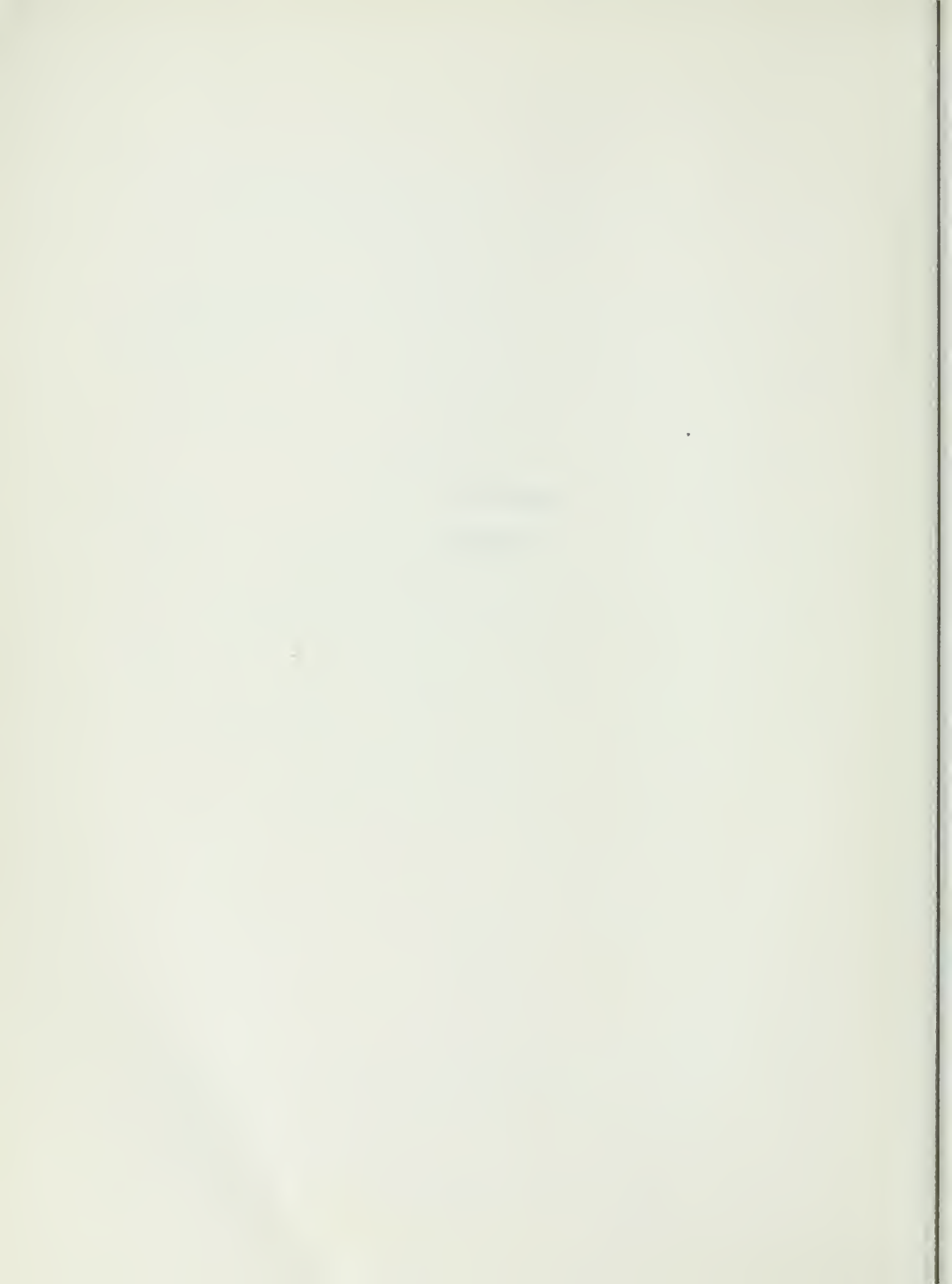


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A-1	Location of Climatological Stations
A-2	Lines of Equal Precipitation

INTRODUCTION

This appendix presents the climatological data for the period July 1, 1962, to June 30, 1963. The data consists of precipitation station descriptions, monthly precipitation quantities, monthly temperature summaries and monthly evaporation totals.

EXPLANATION OF TABLES

Precipitation Station Index

Table A-1 shows the precipitation station index. The climatological station designations used are based on the drainage basin and alpha number. Stations are also named and latitude and longitude are shown to the nearest minute. The county, elevation above sea level, the year the record began and the name of the current observer of record is also shown.

Each main drainage basin is assigned a letter and each subbasin a number as shown on Plate A-1 of this report.

The alpha order number is assigned each station to denote its order in alphabetical sequence for machine processing. The subnumbers are used to avoid duplication of the original four-digit system for machine processing. Only 21 columns are available for the station name making some abbreviations necessary.

Each station is generally named after and referenced to the nearest post office (Livingston SW - a point 5 miles west of the post office in the town of Livingston), or named for a geographic location (Chiquito Creek). Occasionally the observer's name is incorporated in the station name (Hornitos Giles Ranch).

Monthly Precipitation

Table A-2 shows the monthly and seasonal total rainfall for some 395 weather stations within and near the San Joaquin Valley area. This table summarizes all of the available precipitation observations from July 1962 through June 1963. Daily records are available in department office files.

Monthly Temperatures

Table A-3 shows a temperature summary for a monthly period at 60 weather stations throughout the San Joaquin Valley area.

The individual observations were obtained using the observations, techniques, types of thermometers, and exposure conditions recommended by the U. S. Weather Bureau. The Fahrenheit scale is used in all references to temperature.

Terms used in connection with the temperature data are explained in the following:

<u>Term</u>	<u>Definition</u>	<u>Abbreviation</u>
Maximum	The highest temperature of record for the month	Max.
Minimum	The lowest temperature of record for the month.	Min.
Average maximum	The arithmetic average of daily maximum temperatures for indicated period.	Avg. max.
Average minimum	The arithmetic average of daily minimum temperatures for indicated period.	Avg. min.
Average temperature	The average of the daily maximum and minimum for each day; the daily averages are averaged to make the monthly averages.	Avg.

Monthly Summary of Evaporation Station Data

Table A-4 shows the monthly net evaporation at 12 stations throughout the San Joaquin Valley area.

Observations of the amount of water evaporating from an open pan are made in the manner recommended by the U. S. Weather Bureau. The standard Weather Bureau pan is 47.5 inches in diameter and

10 inches deep. It contains clean water to a depth of 7 to 8 inches. The pan is placed on a lumber frame to insulate it from significant conductive heat exchange with the ground. The evaporation is measured by the actual difference in the pan water surface elevation over a 24-hour period with the appropriate adjustments for rainfall.

Terms used in connection with evaporation data are explained below:

<u>Term</u>	<u>Definition</u>	<u>Abbreviation</u>
Evaporation	The net amount of water evaporated from the pan for the period given.	Evap.
Precipitation	The total amount of rainfall in inches which occurred during the period.	Precip.
Wind	The total movement of air over the pan, in miles, for the period.	Wind
Average maximum	See explanation in temperature data table.	
Average minimum	See explanation in temperature data table.	

Reference Notes

A list of the reference notes used in the climatological portion of this report follows:

CD Record published in "Climatological Data" by U. S. Weather Bureau.

WB All or part of record published by U. S. Weather Bureau.

HPD Record published in "Hourly Precipitation Data" by U. S. Weather Bureau.

HPD CD Published in both "CD" and "HPD" from separate gages. Record from "CD" reproduced in this report.

CD(P) Precipitation data published in "CD". Other data published by DWR.

R CD Published in both "CD" and "HPD" from recording rain gage. Record from "CD" reproduced in this report.

R Recording rain gage. Hourly precipitation distribution not necessarily available at DWR.

(R) Hourly precipitation record also available for this station.

S Storage gage. Data published in "Storage Gage Precipitation Data" by U. S. Weather Bureau.

Ss Storage gage using standard rain gage. Data published by DWR.

T Trace.

AS After storm only. Small amounts may not be recorded.

b Preliminary data - subject to revision.

E Wholly or partially estimated.

- No record.

M All or part of record missing.

RB Beginning of record.

RE End of record.

* Amount included in following measurement; time distribution unknown.

V Includes total for previous month.

D Water equivalent of snowfall wholly or partly estimated using a ratio of 1 inch water equivalent to every 10 inches of new snowfall.

SCE Data obtained from Southern California Edison Company.

Additional criteria are:

Dimensional units used in this report are: Temperature in degrees Fahrenheit, precipitation and evaporation in inches, and wind movement in miles (per month).

Evaporation, wind movement and temperature data in this report are not published by the U. S. Weather Bureau.

All temperature data represent air temperatures.

TABLE A-1

PRECIPITATION STATION INDEX

Drainage Basin	Alpha Order Number	Station Name	County	Elev.	Lat.		Long.		Record Began	Observer
					Deg.	Min.	Deg.	Min.		
C0	0009	Academy	Fresno	545	36	53	119	32	1958	Edwin W. Simpson
B6	0049	Ahwahnee 2 NNW	Madera	2790	37	24	119	44	1959	Mrs. Eleanor P. Crooks
C0	0204	Angiola	WB Tulare	205	35	59	119	29	1899	Angiola Elev. & Whse.
C7	0215	Annette	Kern	2140	35	39	120	10	1951	Ernest Still
D6	0239	Apache Camp	WB Ventura	4965	34	52	119	20	1940	Kern Co. Road Camp
C0	0314	Arroyo Hondo	Fresno	1650	36	26	120	34	1951	Closed June 30, 1962
C7	0315	Arroyo Leona	Fresno	1480	36	24	120	32	1947	Closed June 30, 1962
C0	0332	Arvin	Kern	445	35	12	118	49	1936	Kern Co. Fstry. & F.D.
C0	0332-02	Arvin-Frick	Kern	437	35	14	118	52	1959	Dept. Water Resources
C2	0343	Ash Mountain	WB Tulare	1708	36	29	118	50	1925	US Natl. Park Service
B0		Atwater Craig	Merced	150	37	21	120	37	1961	H. J. Craig
C2	0374	Atwell	S Tulare	6400	36	28	119	40	1949	Corps of Engineers
B7	0379	Auberry	WB Fresno	2005	37	05	119	29	1915	Pete E. Dubose
B7	0381	Auberry Valley	Fresno	1300	37	02	119	34	1954	Mrs. George Marshall
C0	0396-02	Avenal-Walden	Kings	810	36	00	120	08	1957	L. F. Walden
C7	0399	Avenal Orchard Ranch	Kings	712	35	48	120	05	1919	E. R. Orchard
C7	0399-01	Avenal 8 SW	Kings	1424	35	58	120	13	1957	J. A. Sagaser
C7	0399-02	Avenal 6 SSW	Kings	1565	35	56	120	10	1953	Leslie Sagaser
C2	0422	Badger	WB Tulare	3030	36	38	119	01	1940	Lucille E. Weddle
B5	0425	Badger Pass	S Mariposa	7300	37	40	119	40	1941	US Natl. Park Service
B5	0430	Baoby	Mariposa	824	37	37	120	08	1958	Chris Mills
C0	0440	Bakersfield 1 W	Kern	400	35	23	119	02	1913	Kern County Land Co.
C0	0442	Bakersfield WB Airport	WB Kern	495	35	25	119	03	1933	US Weather Bureau
C1	0449	Balch Power House	WB Fresno	1720	36	55	119	05	1921	PG&E Company
C1	0534	Barton Flat	S Fresno	3760	36	49	118	53	1961	Corps of Engineers
B5	0570	Bear Valley Trabucco	Mariposa	2000	37	34	120	07	1958	Harold Trabucco
B3	0573	Beardsley Dam	Tuolumne	3416	38	12	120	05	1952	Oakdale Irrig. Dist.
C2	0596	Beartap Meadow	S Tulare	6800	36	41	118	52	1959	Corps of Engineers
B4	0617	Beehive Meadow	S Tuolumne	6500	38	00	119	47	1947	Hetch Hetchy Wtr. Sup.
C0	0631	Bellevue	Kern	369	35	20	119	07	1961	Kern County Land Co.
V2	0684	Benton Insp. Sta	Mono	5460	37	50	118	29	1959	John M. Patterson
B0	0688-02	Berenda 2 N	Madera	270	37	04	120	08	1959	Dept. Water Resources
B7	0755	Big Creek PH No. 1	Fresno	4928	37	12	119	15	1915	So. Calif. Edison Co.
B7	0755-01	Big Creek PH No. 2	Fresno	3000	37	12	119	18	1913	So. Calif. Edison Co.
B7	0755-02	Big Creek PH No. 3	Fresno	1400	37	09	119	23	1922	So. Calif. Edison Co.
B7	0755-05	Big Creek PH No. 8	Fresno	2260	37	12	119	20	1921	So. Calif. Edison Co.
V2	0767	Big Pine Creek	S Inyo	10000	37	08	118	28	1948	Dept. Water Resources
V2	0776	Big Pine PH No. 3	Inyo	4680	37	08	118	19	1925	LA Dept Water & Power
V2	0819	Bishop Creek Intake 2	WB Inyo	8154	37	15	118	35		Calif. Elec. Power Co.
C1	0821	Bishop Pass Snow Course	S Fresno	11040	37	06	118	34	1950	Corps of Engineers
V2	0824	Bishop Union Carbide	WB Inyo	9390	37	22	118	43	1957	Union Carbide Co.
C6	0825-01	Bitter Creek	Ss Kern	1250	35	00	119	20	1961	B. J. Snedden
C0	0875	Blackwells Corner	WB Kern	644	35	37	119	52	1944	Dean Sams
C1		Blasingame	Fresno	1050	36	58	119	27	1961	Calif. Div. Forestry
C1	1069-01	Bretz Mill	Fresno	3250	37	02	119	14	1960	US Forest Service
D1	1170	Buena Vista	WB San Benito	1640	36	46	121	11	1932	Mrs. Lola F. Galli
C0	1174	Buena Vista Ranch	Kern	310	35	20	119	17	1914	Kern County Land Co.
C0	1175	Buena Vista Ranch M & L	Kern	286	35	12	119	18	1955	Miller & Lux Inc.
C0		Buena Vista Ranch M & L 2	Kern	290	35	14	119	18	1962	J. G. Boswell Co.
C6	1199-01	Burgess Corrales	Ss Kern	1600	34	58	119	19	1960	B. J. Snedden
C0	1244	Buttonwillow	WB Kern	268	35	24	119	28	1940	Buena Vista W.S. Dist.
B2	1277	Calaveras Big Trees	WB Calaveras	4696	38	17	120	19	1929	Calif. Div Beaches & Pks
B3	1280	Calaveras Ranger Sta	WB Calaveras	3343	38	12	120	22	1944	US Forest Service
C4	1300	Calif. Hot Springs RS	WB Tulare	2950	35	53	118	41	1907	US Forest Service
C3	1425	Camp Nelson	Tulare	4825	36	08	118	37	1959	John F. Lewis
C0	1479	Canfield Ranch	Kern	334	35	17	119	10	1952	Kern County Land Co.
V7	1488	Cantil	WB Kern	2010	35	18	117	58	1955	Postmaster
C0	1490	Cantua Ranch	Fresno	295	36	30	120	19	1955	Giffen Ranch
C0	1557	Caruthers 4 E	Fresno	265	36	33	119	46	1960	R. L. Kincaide
B0	1580	Castle AFB	Merced	170	37	22	120	34	1951	US Air Force
B8	1583	Castle Rock Rad. Lab.	San Joaquin	625	37	38	121	32	1956	Lawrence Rad. Lab.
B5	1588	Cathay Bull Run Ranch	WB Mariposa	1425	37	24	120	03	1940	Wm. H. Alison
B5	1588-01	Cathay Meyer Ranch	Mariposa	2250	37	29	120	04	1957	Horace Meyer
B5	1588-03	Cathay 3 NNW	Mariposa	1250	37	29	120	07	1957	William Pierce
B6	1590	Cathay Sawyer Ranch	Mariposa	1275	37	26	120	06	1957	W. H. Sawyer

TABLE A-1
PRECIPITATION STATION INDEX (Continued)

Drainage Basin	Alpha Order Number	Station Name		County	Elev.	Lat.		Long.		Record Began	Observer
						Deg.	Min.	Deg.	Min.		
B6	1591	Cathay Stonehouse		Mariposa	1210	37	25	120	05	1951	S. S. Spurgin
B6	1611	Cedar Point Ranch	WB	Mariposa	3230	37	28	119	44	1957	Closed July 1, 1962
B4	1697	Cherry Valley Dam	WB	Tuolumne	4765	37	58	119	55	1955	Hetch Hetchy Wtr. Sup.
B7	1737	Chiquito Creek	S	Madera	7290	37	30	119	23	1961	Dept. Water Resources
D3	1743	Cholame Hatch Ranch	WB	San Luis Obpo	1975	35	41	120	12	1925	Everett C. Hatch
C7	1743-02	Cholame Twisselman		San Luis Obpo	1675	35	34	120	07	1951	H. A. Twisselman
Z2	1754	Chuchupate Ranger Sta.	WB	Ventura	5260	34	48	119	01	1941	US Forest Service
C0		Citrus		Kern	660	35	02	118	58		Kern County Land Co.
B7	1844	Clover Meadows G.S.	S	Madera	7002	37	32	119	17	1945	Dept. Water Resources
C0	1864	Coalinga	WB	Fresno	671	36	09	120	21	1942	Coalinga Fire Dept.
C0		Coalinga C.D.F.		Fresno	690	36	08	120	22	1961	Calif Div of Forestry
C7	1864-02	Coalinga Roberts Ranch		Fresno	1350	36	02	120	27	1953	R. J. Roberts
C0	1867	Coalinga 1 SE	WB	Fresno	663	36	08	120	21	1911	Union Oil Company
C7	1869	Coalinga 14 WNW	WB	Fresno	1640	36	14	120	34	1949	Mrs. Charles Howell
B6	1878	Coarsegold		Madera	2363	37	16	119	42	1952	Mrs. Dorothy McAllister
C0	1885	Coit Ranch Hdqtrs.		Fresno	278	36	42	120	28	1954	Coit Ranch
B4	1904	Cold Springs		Tuolumne	5680	38	10	120	03	1961	John D. Morrison
B3	2003	Copperopolis		Calaveras	970	37	59	120	38	1954	Corps of Engineers
C0	2012	Corcoran Irrig. Dist.	WB	Kings	200	36	06	119	34	1912	S. S. Whitehead
C0	2013	Corcoran El Rico 1		Kings	198	36	03	119	39	1958	J. G. Boswell Co.
C0	2013-05	Corcoran El Rico 33		Kings	190	35	58	119	42	1951	J. G. Boswell Co.
V2	2069	Cottonwood Creek	S	Inyo	10600	36	29	118	11	1947	Dept Water Resources
V2	2071	Cottonwood Gates		Inyo	3710	36	25	118	02	-	LA Dept Water & Power
B5	2072	Coulterville FFS		Mariposa	1870	37	43	120	12	1959	Calif Div of Forestry
B5	2072-05	Coulterville 5 E		Mariposa	3010	37	43	120	06	1959	Norman Jaenecke
C5	2114	Crabtree Meadow	S	Tulare	10720	36	34	118	20	1950	Corps of Engineers
B7	2122	Crane Valley PH		Madera	3500	37	17	119	32	1903	PG&E Company
V2	2181	Crowley Lake		Mono	6870	37	35	118	42	1920	LA Dept Water & Power
C6	2222	Cummings Valley		Kern	3825	35	07	118	35	1931	Dept Water Resources
D6	2236	Cuyama	WB	Santa Barbara	2240	34	56	119	37	1944	John S. Rowell
D6	2248	Cuyama Ranch	WB	San Luis Obpo	2170	34	59	119	40	1948	Corps of Engineers
B6	2288	Daulton		Madera	410	37	07	119	59	1946	M. M. Greenman
C0	2346	Delano	WB	Kern	323	35	47	119	15	1876	Delano Fire Dept.
B8	2369	Del Puerto Road Camp	WB	Stanislaus	1125	37	25	121	23	1958	Stanislaus County
B0	2375	Delta Ranch		Merced	90	37	07	120	45	1948	Pasquale Bisignani
B0	2389	Denair	WB	Stanislaus	124	37	32	120	48	1917	W. F. Moore
C0	2408	Devils Den SLF		Kern	500	35	46	119	58	1959	South Lake Farms
C0	2436	Di Giorgio		Kern	483	35	15	118	51	1937	Di Giorgio Fruit Corp.
C0	2440-01	Dinuba Alta ID		Tulare	334	36	33	119	23	1944	Alta Irrigation Dist.
C7	2464	Domengine Ranch		Fresno	1000	36	20	120	22	1959	V. Ciesielski
C7	2464-01	Domengine Spring		Fresno	1700	36	20	120	24	1958	V. Ciesielski
B4	2473	Don Pedro Reservoir		Tuolumne	700	37	43	120	24	1940	Hetch Hetchy Wtr Sup
C5	2492	Doublebunk Meadow	S	Tulare	6200	35	57	118	36	1955	Corps of Engineers
B5	2539	Dudley's	WB	Mariposa	3000	37	45	120	06	1909	W. D. McLean
B4	2609	Early Intake PH		Tuolumne	2356	37	53	119	57	1925	Hetch Hetchy Wtr Sup
C1	2653	East Vidette Meadow	S	Tulare	10400	36	44	118	23	1955	Corps of Engineers
C0		Eighth Standard Ranch		Kern	338	35	06	119	02	1963	Kern County Land Co.
V0	2756	Ellery Lake	WB	Mono	9600	37	56	119	14	1924	Calif Elec Power Co.
C7	2785	El Rancho Cantua		Fresno	1020	36	25	120	20	1938	Lyle Christie
B0	2820	El Solyo Ranch		Stanislaus	50	37	37	121	14	1953	John K. Ohm
B0	2860	Escalon Swanson		San Joaquin	125	37	47	121	00	1944	Clark Swanson
B0	2909	Eugene		Stanislaus	173	37	55	120	51	1923	Corps of Engineers
B5	2920	Exchequer Reservoir	WB	Mariposa	484	37	35	120	16	1935	Merced Irrigation Dist
C0	2922	Exeter Fauver Ranch	WB	Tulare	439	36	21	119	04	1938	Charles O. Coulter
B0	2968	Fancher Ranch Camp 3		Merced	225	37	19	120	20	1959	Calif. Packing Corp.
C7	3005	Fellows		Kern	1340	35	11	119	33	1956	Kern Co. Fire Dept.
B0	3063	Firebaugh 9 W		Fresno	185	36	51	120	37	1934	Thomas & Thomas Ranch
C0	3083	Five Points 5 SSW	WB	Fresno	285	36	21	120	09	1942	Raymond Thomas Ranch
C0	3084	Five Points Diener		Fresno	263	36	22	120	06	1933	Frank C. Diener
B7	3093	Florence Lake	WB	Fresno	7344	37	16	118	58	1940	So Calif Edison Co.
C0	3257	Fresno WB Airport	WB	Fresno	326	36	46	119	43	1899	US Weather Bureau
B7	3261	Friant Government Camp	WB	Fresno	410	36	59	119	43	1896	US Bur. Reclamation
V0	3369	Gem Lake	WB	Mono	8970	37	45	119	08	1924	Calif Elec Power Co.
E5	3387	Gerber Ranch	WB	Santa Clara	2140	37	22	121	29	1912	Mrs. Hilda Draghi
C2	3397	Giant Forest	WB	Tulare	6412	36	34	118	46	1921	US Natl Park Service

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PRECIPITATION STATION INDEX (Continued)

Drainage Basin	Alpha Order Number	Station Name	County	Elev.	Lat.		Long.		Record Begon	Observer
					Deg.	Min.	Deg.	Min.		
D1	3422	Gilroy 14 ENE	WB Santa Clara	1350	37	06	121	20	1940	Seth E. Auser
C0	3428-01	Gin Yard	Kern	295	35	09	119	14	1960	Miller & Lux Inc.
C4	3463	Glennville	WB Kern	3140	35	43	118	42	1951	Kern Co Fstry & FD
C4	3465	Glennville Fulton RS	WB Kern	3500	35	44	118	40	1940	US Forest Service
C0	3512	Gosford Feed Mill	Kern	360	35	19	119	05	1953	Kern County Land Co.
B4	3529	Grace Meadow	S Tuolumne	8900	38	09	119	36	1947	Hetch Hetchy Wtr Sup
C1	3548	Granite Basin	S Fresno	10000	36	52	118	36	1949	Corps of Engineers
C1	3551	Grant Grove	WB Tulare	6590	36	44	118	58	1924	US Natl Park Service
B5	3612-03	Green Valley Ranch	WB Mariposa	3170	37	46	120	09	1957	Mrs. D. Davidson
B4	3669	Groveland 2	WB Tuolumne	2825	37	50	120	14	1940	Duane J. Cox
B4	3672	Groveland Ranger Sta	WB Tuolumne	3135	37	49	120	06	1940	US Forest Service
B0	3690-02	Gustine 5 SW	Merced	145	37	13	121	03	1927	W. P. Jorgensen
B0	3690-04	Gustine Snyder	Merced	150	37	12	121	03	1954	Harry M. Snyder
B0		Gustine 7 SSW	Merced	156	37	10	121	02	1959	Mrs. George E. Butts
B0	3694	Gustine Avozet	Merced	98	37	15	121	00	1928	Foremost Co.
V7	3710	Haiwee	WB Inyo	3810	36	08	117	57	1923	LA Dept Water & Power
C0	3747	Hanford	WB Kings	242	36	20	119	40	1899	Calif Div of Forestry
C1	3811-11	Hasslett Basin	Fresno	2400	36	58	119	13	1960	US Forest Service
D1	3925	Hernandez 2 NW	WB San Benito	2160	36	25	120	55	1940	Max D. Ley
D1	3928	Hernandez 7 SE	WB San Benito	2765	36	18	120	42	1940	Mrs. Clorene Akers
B4	3939	Hetch Hetchy	WB Tuolumne	3870	37	57	119	47	1910	Hetch Hetchy Wtr Sup
B6	3948	Hidden Valley	Mariposa	1880	37	26	119	56	1949	Howard Brady
B2	3952	Highland Lakes	S Alpine	8700	38	30	119	48	1960	Dept Water Resources
B0	3981	Hilmar	Merced	90	37	25	120	51	1948	Hilmar Fire Dept
C2	4012	Hockett Meadows	S Tulare	8500	36	22	118	39	1959	Corps of Engineers
C0	4061-01	Homeland Dist. Sec 9	Kings	190	35	57	119	36	1952	J. G. Boswell Co.
C0	4061-02	Homeland Dist. Sec 17	Kings	206	35	50	119	37	1952	J. G. Boswell Co.
C0	4061-03	Homeland Dist. Sec 34	Kings	195	35	53	119	34	1951	J. G. Boswell Co.
B5		Hornitos	Mariposa	850	37	30	120	14	1960	Corps of Engineers
B5	4102-01	Hornitos Erickson Ranch	Mariposa	1150	37	30	120	09	1955	Louie Erickson
B5	4103	Hornitos Giles Ranch	Mariposa	1050	37	28	120	14	1939	Arthur Giles
C3	4120	Hossack	S Tulare	7100	36	11	118	37	1959	Corps of Engineers
B4	4148	Huckleberry Lake	WB Tuolumne	7800	38	06	119	45	1959	Hetch Hetchy Wtr Sup
B3	4170	Hunters Dam	WB Calaveras	3220	38	12	120	22	1950	PG&E Company
B7	4176	Huntington Lake	WB Fresno	7020	37	14	119	13	1915	So. Calif Edison Co.
C7	4204	Idria	WB San Benito	2650	36	25	120	40	1918	New Idria Mine & Chem
V2	4235	Independence Onion Vly	WB Inyo	9175	36	46	118	20	1948	LA Dept Water & Power
B5	4246	Indian Gulch	Mariposa	1000	37	26	120	12	1952	Frank N. Solari
V7	4278	Inyokern	WB Kern	2440	35	39	117	49	1937	Kern County Fire Dept
C5	4303	Isabella Dam	Kern	2660	35	39	118	29	1949	Corps of Engineers
B5	4369	Jerseydale GS	Mariposa	3605	37	33	119	50	1958	US Forest Service
C5	4389	Johnsondale	WB Tulare	4680	35	58	118	32	1954	US Forest Service
B7	4442	Kaiser Meadows	S Fresno	9110	37	18	119	06	1946	So. Calif Edison Co.
C2	4452	Kaweah PH 3	Tulare	1370	36	29	118	50	1913	So. Calif Edison Co.
C6	4463	Keene	Kern	2575	35	13	118	34	1948	Kern Co. Fire Dept.
B8	4508	Kerlinger	WB San Joaquin	172	37	41	121	26	1947	Pac. Coast Aggregates
C0	4510-02	Kernan 2 ESE	Fresno	225	36	43	120	01	1960	Dept Water Resources
C5	4513	Kern Canyon	Tulare	700	35	26	118	48	1916	PG&E Company
C5	4518	Kern River Intake No. 3	WB Tulare	3650	35	57	118	29	1952	Mrs. Lila Lofberg
C5	4519	Kern R. Intake 3 SCE	Tulare	3642	35	57	118	29	1921	So. Calif Edison Co.
C5	4520	Kern River PH No. 1	WB Kern	970	35	28	118	47	1904	So. Calif Edison Co.
C5	4523	Kern River PH No. 3	WB Kern	2703	35	47	118	26	1946	So. Calif Edison Co.
C5	4527-01	Kernville RS	Kern	2600	35	45	118	25	1953	Velma Aravjo
C0	4534	Kettleman City 1 SSW	WB Kings	310	36	00	119	58	1930	Standard Oil Co Calif
C0	4535	Kettleman Hills	Kings	1255	36	02	120	06	1931	Standard Oil Co Calif.
C0	4536	Kettleman Station	WB Kings	508	36	04	120	05	1933	PG&E Company
B0	4590	Knights Ferry 2 SE	WB Stanislaus	315	37	48	120	39	1905	Raymond Willms
B3	4664	Lake Alpine	S Alpine	7500	38	28	120	01	1948	Dept Water Resources
B4	4679	Lake Eleanor	S Tuolumne	4662	37	58	119	53	1909	Hetch Hetchy Wtr Sup
V2	4705	Lake Sabrina	S Inyo	9065	37	13	118	37	1948	Calif Elec Power Co
D3	4767	La Panza Ranch	WB San Luis Obpo	1550	35	23	120	10	1948	Abe E. Zimmerman
C6	4863	Lobec	WB Kern	3585	34	50	118	52	1940	Kern Co Fire Dept
B5	4883	LeGrand Preston Ranch	Mariposa	984	37	20	120	02	1950	Ray Preston
B0	4884	LeGrand	Merced	255	37	14	120	15	1899	Merced Co Fire Dept
B0	4884-05	LeGrand 5 N	Merced	280	37	19	120	15	1945	James Massengale

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PRECIPITATION STATION INDEX (Continued)

Drainage Basin	Alpha Order Number	Station Name		County	Elev.	Lat.		Long.		Record Began	Observer	
						Deg.	Min.	Deg.	Min.			
C2	4890	Lemon Cove		WB	Tulare	513	36	23	119	02	1899	Kaweah Lemon Co.
B0	4953-02	Linden Fire Station			San Joaquin	90	38	01	121	05	1948	E. J. Murphy
C0	4957	Lindsay		WB	Tulare	395	36	11	119	04	1913	Frank DeChaine
B0	4999-03	Livingston 5 W			Merced	112	37	22	120	48	1952	E&J Gallo Winery Rch
C7	5008	Loca Mariana			Fresno	1700	36	21	120	25	1951	Closed July 1, 1962
B7	5040	Logan Meadow		S	Madera	3400	37	20	119	19	1947	So. Calif Edison Co.
V2	5067	Lone Pine Cottonwood PH		WB	Inyo	3790	36	27	118	03	1940	LA Dept Water & Power
B8	5074	Lone Tree Canyon		WB	San Joaquin	420	37	37	121	23	1933	Edward C. Gerlach
B4	5077	Long Barn			Tuolumne	4963	38	06	120	08	1960	Closed June, 1962
B3	5078	Long Barn Exp. Sta		WB	Tuolumne	5200	38	11	120	01	1940	US Forest Service
C6	5098	Loraine		WB	Kern	2720	35	18	118	26	1941	Charles W. Poole
V2	5111-09	LA Aqueduct Intake			Inyo	3841	36	58	118	12	1919	LA Dept Water & Power
B0	5116	Los Banos 5 S			Merced	175	36	59	120	51	1948	H. G. Fawcett
B0	5117	Los Banos Field Sta			Merced	160	37	01	120	54	1956	US Bur. Reclamation
B0	5118	Los Banos		WB	Merced	125	37	03	120	51	1873	Roger C. Rice
B8	5119	Los Banos Arburua Rch		WB	Merced	860	36	53	120	56	1932	Arburua Ranch
C0	5151	Lost Hills		WB	Kern	285	35	37	119	41	1912	Kern Co. Fstry & FD
C1	5155-51	Lower Big Creek			Fresno	1100	36	55	119	15	1960	US Forest Service
B4	5160	Lower Kibbey Ridge		S	Tuolumne	6500	38	01	119	53	1948	Hetch Hetchy Wtr Sup
B6	5202	Lushmeadows Ranch			Mariposa	3215	37	29	119	50	1959	F. L. Raby
B0	5233	Madera		WB	Madera	268	36	58	120	04	1899	Calif Div of Forestry
C0	5257	Magunden			Kern	440	35	22	118	55	1927	So. Calif Edison Co.
V2	5284	Mammoth Pass		S	Mono	9500	37	37	119	02	1947	LA Dept Water & Power
B0	5297-01	Manteca No. 2			San Joaquin	46	37	48	121	12	1930	Spreckles Sugar Co.
B0	5297-02	Manteca SP			San Joaquin	42	37	48	121	13	1935	Southern Pacific Co.
C7	5338	Maricopa		WB	Kern	685	35	05	119	23	1911	Signal Oil & Gas Co.
C7	5338-01	Maricopa FS			Kern	885	35	04	119	24	1958	Kern Co. Fire Dept.
B5	5346	Mariposa		WB	Mariposa	2011	37	29	119	58	1909	Mrs. Gabrielle Wilson
B5	5346-01	Mariposa Reynolds			Mariposa	2000	37	29	119	58	1958	E. F. Reynolds
B6	5346-04	Mariposa 8 ESE			Mariposa	2780	37	27	119	50	1952	D. A. Boyce
B5	5348	Mariposa Circle 9 Rch			Mariposa	3536	37	33	119	51	1957	Dorothy D. Sevedge
B5	5352	Mariposa RS			Mariposa	2100	37	30	119	59	1943	Calif Div of Forestry
C7	5372-01	Martinez Spring			Fresno	1875	36	20	120	25	1959	V. Ciesielski
B4	5400	Mather		WB	Tuolumne	4515	37	53	119	51	1930	City of San Francisco
B0		Mattos Ranch			Merced	170	36	59	120	51	1961	Roger C. Rice
B0		Maze Bridge 2 S			Stanislaus	35	37	37	121	13	1958	Dept Water Resources
B5	5460	McDiernid Sta			Mariposa	2990	37	43	120	06	1959	James R. Alvis
C7	5480-01	McKittrick FS			Kern	1051	35	18	119	37	1956	Kern Co. Fire Dept
B7	5496	Meadow Lake		WB	Fresno	4480	37	05	119	26	1948	Radio Station KRFM
B3	5511	Melones Dam			Tuolumne	900	37	57	120	31	1955	Oakdale Irrig. Dist.
B0	5526	Mendota 1 NNW			Fresno	172	36	46	120	23	1941	Henry E. Schreiner
C0	5526-04	Mendota Murietta Ranch			Fresno	261	36	39	120	27	1958	Closed July, 1962
B0	5528	Mendota Dam		WB	Fresno	166	36	47	120	22	1873	Frank F. Moitza
C0	5529	Mendota Halfway Pump			Fresno	450	36	28	120	24	1956	Tidewater Oil Co.
C0	5530	Mendota VDL Farms			Fresno	230	36	45	120	28	1948	Vista Del Llano Farms
B0	5532	Merced Fire Station 2		WB	Merced	169	37	18	120	29	1872	City of Merced
B0	5532-01	Merced SP			Merced	170	37	18	120	29	1872	Southern Pacific Co.
B0	5532-03	Merced 5 SE			Merced	198	37	16	120	23	1959	Dept Water Resources
B0	5534	Merced Fancher Ranch			Merced	212	37	18	120	21	1920	Calif Packing Corp
B0	5535	Merced 2		WB	Merced	168	37	19	120	29	1938	Merced Irrig Dist
B8	5550	Mersey Hot Springs		WB	Fresno	1165	36	42	120	52	1932	Horace C. Swatzel
C3	5669	Milo 5 NE		WB	Tulare	3400	36	17	118	46	1957	Mrs. Ethel Walker
B7		Minarets RS			Madera	5180	37	25	119	21	1962	US Forest Service
C2	5680	Mineral King		S	Tulare	7975	36	26	118	35	1956	Corps of Engineers
C2	5708	Miramonte Honor Camp			Fresno	3005	36	40	119	05	1957	Calif Div of Forestry
C1	5723	Mitchell Meadow		S	Fresno	9700	36	45	118	43	1957	Corps of Engineers
B4	5735	Moccasin			Tuolumne	950	37	49	120	18	1935	Hetch Hetchy Wtr Sup
B0	5738	Modesto		WB	Stanislaus	91	37	39	121	00	1926	Modesto Irrig Dist
B0	5740	Modesto KTRB			Stanislaus	93	37	40	120	59	1959	Clifford Price
B0	5741	Modesto 2		WB	Stanislaus	92	37	38	121	00	1942	City of Modesto
V8	5756	Mojave		WB	Kern	2735	35	03	118	10	1947	Kern Co Fire Dept
V8	5758	Mojave 2 ESE		WB	Kern	2680	35	02	118	09	1963	KDOL Radio Station
C5	5777	Monache Meadows		S	Tulare	8000	36	13	118	10	1950	Corps of Engineers
C0		Moody Ranch			Kern	405	35	06	118	58	1963	Kern County Land Co.
C1	5893	Mountain Rest FFS			Fresno	4100	37	03	119	22	1960	US Forest Service

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PRECIPITATION STATION INDEX (Continued)

Drainage Basin	Alpha Order Number	Station Name		County	Elev.	Lot.		Long.		Record Began	Observer	
						Deg.	Min.	Deg.	Min.			
V8	6122	Neenach		WB	Los Angeles	2890	34	43	118	35	1931	LA Dept Water & Power
B0	6168	Newman 2 NW		WB	Stanislaus	108	37	21	121	03	1899	Richard A. Smith
B0	6168-01	Newman 1 SE			Merced	80	37	18	121	00	1960	Dept Water Resources
C0	6230-50	North Belridge			Kern	630	35	33	119	47	1953	Belridge Oil Co.
B7	6252	North Fork Ranger Sta		WB	Madera	2630	37	14	119	30	1904	US Forest Service
B0	6303	Oakdale			Stanislaus	155	37	46	120	51	1880	A. L. Gilbert Co.
B0	6305	Oakdale Woodward Dam		WB	Stanislaus	215	37	52	120	52	1918	S San Joaquin I.D.
B6		Oakhurst			Madera	2347	37	20	119	39	1961	Basil E. Judd
C4	6391	Oildale Smoot Ranch			Kern	805	35	31	118	54	1949	Closed July, 1962
C0	6393	Oilfields FFS			Fresno	950	36	15	120	19	1952	Gene Martin
C7	6395	Oilfields Joaquin Ridge		S	Fresno	3620	36	18	120	24	1949	US Weather Bureau
C5		Onyx			Kern	2750	35	42	118	13	1962	Corps of Engineers
C2	6476	Orange Cove		WB	Fresno	431	36	37	119	18	1931	Orange Cove Citrus Assn
B0	6490	Orestimba			Stanislaus	110	37	22	121	04	1896	Central Cal Irr Dist
B5	6552	Ostrander Lake		S	Mariposa	8600	37	38	119	33	1947	US Natl Park Service
B8	6583	Pacheco Pass		WB	Merced	880	37	04	121	11	1949	US Bur. Reclamation
C0	6651	Paloma Ranch			Kern	290	35	11	119	11	1957	Miller & Lux Inc.
B8	6675	Panoche		WB	San Benito	1265	36	36	120	50	1922	Miss Lily Berg
B8	6676	Panoche 2 W			San Benito	1320	36	37	120	53	1957	Malcolm Strohn
B0	6677	Panoche Creek		WB	Fresno	370	36	41	120	35	1963	Employee Enter Inc
C0	6678	Panoche Junction		WB	Fresno	420	36	32	120	27	1938	Closed Oct, 1962
B0	6679-05	Panoche Water Dist			Fresno	183	36	53	120	44	1949	Panoche Water Dist
B4	6688	Paradise Meadow		S	Tuolumne	7700	38	03	119	40	1948	Hetch Hetchy Wtr Sup
D3	6703	Parkfield		WB	Monterey	1482	35	53	120	26	1938	Herbert H. Durham
D3	6706	Parkfield 7 NNW		WB	Monterey	3590	36	00	120	28	1948	Raulston P. Morrison
B0	6746-01	Patterson			Stanislaus	100	37	28	121	07	1912	Yancey Lumber Co.
C6	6754	Pattway		WB	Kern	3868	34	56	119	23	1915	Hudson Ranch
C2	6767	Pear Lake		S	Tulare	9700	36	36	118	40	1956	Corps of Engineers
B8	6847	Pfeiffer Ranch			Merced	1650	36	53	121	08	1954	Frances S. Pfeiffer
C1	6857	Piedra		WB	Fresno	580	36	48	119	23	1917	Mrs. Ida H. Akers
B3	6893	Pinecrest Strawberry			Tuolumne	5620	38	11	119	59	1922	PG&E Company
C1	6895	Pine Flat Dam			Fresno	615	36	50	119	19	1949	Corps of Engineers
C1	6902	Pinehurst			Fresno	4050	36	42	119	01	1954	US Forest Service
B7		Placer GS			Madera	3670	37	22	119	22	1962	US Forest Service
C0		Pond 1 N			Kern	268	35	44	119	19	1962	Dept Water Resources
C0	7077	Porterville		WB	Tulare	393	36	04	119	01	1893	John H. Daybell
C0	7079	Porterville 3 W			Tulare	413	36	05	119	04	1958	Porterville Irr Dist
C5	7093	Portuguese Meadow		S	Tulare	7000	35	48	118	34	1953	Corps of Engineers
C4	7096	Posey 3 E		WB	Tulare	4920	35	48	118	38	1954	Panorama Height Lodge
C0	7098-11	Poso Ranch			Kern	370	35	37	119	16	1913	Kern County Land Co.
B0	7099-11	Poso Canal Co Hdq			Fresno	125	36	59	120	30	-	Central Cal Irr Dist
B4	7145	Priest			Tuolumne	2245	37	49	120	16	1928	Hetch Hetchy Wtr Sup
D2	7150	Priest Valley		WB	Monterey	2300	36	11	120	42	1898	Nelson H. Palmer
C5	7179	Quaking Aspen		S	Tulare	7200	36	07	118	32	1955	Corps of Engineers
C1	7259	Rattlesnake Creek		S	Fresno	9900	36	59	118	43	1961	Corps of Engineers
C7	7254-01	Rattlesnake Springs			Fresno	1400	36	22	120	28	1951	Closed June 30, 1962
B6	7270-01	Raymond 3 SSW			Madera	635	37	11	119	56	1940	Sam Wood
B6	7272-01	Raymond 10 N			Mariposa	1640	37	22	119	54	1957	Fred Bunning
B6	7273	Raymond 9 N		WB	Mariposa	1210	37	21	119	53	1962	Richard W. Schall
B6	7276	Raymond 12 NNE			Mariposa	1600	37	23	119	50	1954	L. E. Schatz
C0	7288	Rector			Tulare	344	36	18	119	15	1888	So Calif Edison Co.
C0		Reedley MVFD			Fresno	345	36	37	119	27	1962	Mid-Valley Fire Dist
B0		Ripon			San Joaquin	65	37	45	121	07	1963	Mr. Arthur N. Clemens
C0	7460	Riverdale			Fresno	220	36	26	119	52	1917	Mid-Valley Fire Dist
V2	7510	Rock Creek		S	Inyo	9670	37	27	118	44	1947	Dept Water Resources
B6	7528	Rocky Village			Mariposa	570	37	22	120	10	1957	W. R. Down
C0	7555	Rosedale			Kern	380	35	26	119	08	1914	Kern County Land Co.
B7	7560	Rose Marie Meadow		S	Fresno	10000	37	19	118	52	1953	So Calif Edison Co.
C5	7579	Round Meadow		S	Tulare	9000	35	58	118	21	1947	Corps of Engineers
B4	7623	Saches Springs		S	Tuolumne	7900	38	06	119	51	1948	Hetch Hetchy Wtr Sup
C7	7687-02	Salt Creek			Fresno	575	36	25	120	24	1951	Closed July 1, 1962
D1	7719	San Benito		WB	San Benito	1355	36	31	121	05	1936	John M. Shields
Z2	7735	Sandberg WB		WB	Los Angeles	4517	34	45	118	44	1933	US Weather Bureau
C0	7753	San Emigdio Ranch		WB	Kern	1450	35	00	119	12	1901	Kern County Land Co.
D1	7755	San Felipe Highway Sta		WB	Santa Clara	365	37	01	121	20	1943	Div of Highways

TABLE A-1
PRECIPITATION STATION INDEX (Continued)

Drainage Basin	Alpha Order Number	Station Name	County	Elev.	Lat.		Long.		Record Begon	Observer
					Deg.	Min.	Deg.	Min.		
C0	7800-02	Sanger 1 NE	Fresno	375	36	44	119	33	1959	G. L. Minter
C0	7800-03	Sanger RS	Fresno	375	36	44	119	33	1958	Calif Div of Forestry
C0	7816	San Joaquin	Fresno	174	36	36	120	11	1919	James Irrig Dist
C0		San Joaquin MVFD	Fresno	174	36	36	120	11	1962	Mid-Valley Fire Dist
B7	7817	San Joaquin Exp Range	WB Madera	1100	37	06	119	44	1934	US Forest Service
B0	7836-01	San Juan Hdqrs M&L	Merced	105	37	05	120	39	1947	Miller & Lux Inc.
B8	7846	San Luis Dam	WB Merced	260	37	03	121	04	1963	US Bur. Reclamation
B0	7855	San Luis Canal Co Hdq	Merced	106	37	03	120	40	1944	San Luis Canal Co.
D7	8259-02	Simmmler R. W. Cooper	San Luis Obpo	2040	35	24	120	06	1936	R.W. Cooper
D7	8259-04	Simmmler Maint Sta	San Luis Obpo	2030	35	21	119	59	1946	Div of Highways
D2	8276	Slack Canyon	WB Monterey	1730	36	05	120	40	1955	Calif Div of Forestry
C6	8304	Smith Flat	Ss Kern	3800	34	54	119	21	1960	Mr. B. J. Snedden
B5	8318	Snow Flat	S Mariposa	8700	37	50	119	30	1947	Dept Water Resources
C1	8323-01	Soaproot Saddle	Fresno	3830	37	02	119	15	1960	US Forest Service
D7	8326	Soda Lake	San Luis Obpo	1960	35	15	119	55	1925	Dewey Werling
B4	8353	Sonora	WB Tuolumne	1830	37	59	120	23	1887	PG&E Company
G9	8355	Sonora Junction	WB Mono	6886	38	21	119	27	1959	Div of Highways
C0	8375-50	South Belridge	Kern	575	35	27	119	43	1938	Belridge Oil Co.
B0	8378	South Dos Palos	Merced	116	36	58	120	39	1938	Southern Pacific Co.
B5	8380	So Entrance Yosemite NP	WB Mariposa	5120	37	30	119	38	1941	US Natl Park Service
V2	8406	South Lake	S Inyo	9580	37	11	118	34	1948	Calif Elec Power Co
C0	8407-11	South Lake Farms Hdq.	Kings	190	35	56	119	39	1959	South Lake Farms
B3	8450	Spring Gap Forebay	Tuolumne	3000	38	11	120	06	1921	PG&E Company
C3	8455	Springville 7 ENE	WB Tulare	2470	36	10	118	42	1953	Elmer A. Sutton
C3	8460	Springville RS	WB Tulare	1050	36	08	118	48	1924	US Forest Service
C3	8463	Springville Tule Headwrks	WB Tulare	4070	36	12	118	39	1907	PG&E Company
C2		Squaw Valley	Fresno	1750	36	45	119	13	1961	Edgar Young
B3	8499	Stanislaus Pover House	WB Tuolumne	1130	38	08	120	22	-	PG&E Company
C1	8510	State Lakes	S Fresno	10300	36	56	118	35	1955	Corps of Engineers
C0	8520	Stevenson Dist Sec 33	Tulare	212	36	03	119	30	1951	J. G. Boswell Co.
C3	8620	Success Dam	Tulare	590	36	03	118	55	1959	Corps of Engineers
C1	8643	Summit Meadow	S Fresno	6240	37	05	119	13	1960	Dept Water Resources
C7	8752	Taft	WB Kern	1025	35	09	119	28	1940	Kern Co Fstry & FD
C7	8755	Taft KTKR Radio	Kern	1030	35	09	119	28	1954	Jerry Mann
C6	8826	Tehachapi	WB Kern	3975	35	08	118	27	1876	Mrs. Anita Cowan
C6	8832	Tehachapi RS	WB Kern	3975	35	08	118	27	1940	Kern Co Fire Dept.
C6	8839	Tejon Rancho	WB Kern	1425	35	02	118	45	1895	Tejon Ranch Co.
C2	8868	Terminus Dam	Tulare	965	36	25	119	00	1959	Corps of Engineers
C7		Thirty-Two Corral	Fresno	1700	36	19	120	22	1959	V. Ciesielski
C2	8912	Three Rivers 6 SE	WB Tulare	2200	36	22	118	51	1940	Glenn Baker
C2	8914	Three Rivers Edison PH 2	WB Tulare	950	36	28	118	53	1909	So Calif Edison Co
C2	8917	Three Rivers Edison PH 1	WB Tulare	1140	36	28	118	52	1940	So Calif Edison Co
B0	8997	Tracy 2 SSE	WB San Joaquin	105	37	43	121	25	1951	Aage R. Tugel
B8	8999	Tracy Carbona	WB San Joaquin	140	37	42	121	25	1934	Banta Carbona Irr Co
C0	9006	Tranquillity Glotz	Fresno	165	36	37	120	14	1953	Ted Gromala
C0		Traver 4 ESE	Tulare	285	36	26	119	24	1962	Dept Water Resources
C1	9025	Trimmer RS	Fresno	736	36	54	119	17	1948	US Forest Service
C0	9051	Tulare	Tulare	293	36	13	119	20	1919	So Calif Edison Co
C0	9051-04	Tulare Dist Sec 27	Kings	179	36	04	119	48	1953	J. G. Boswell Co.
C0	9052	Tulefield	WB Kern	295	35	09	119	01	1948	Kern County Land Co
C3	9059	Tule River Intake	Tulare	2450	36	10	118	42	1910	So Calif Edison Co
C3	9060	Tule River PH	Tulare	1240	36	08	118	47	1910	So Calif Edison Co
C5	9061	Tunnel RS	S Tulare	8950	36	22	118	17	1945	Dept Water Resources
B3	9062	Tulloch Dam	Calaveras	515	37	53	120	36	1958	Oakdale Irrig Dist
B4	9063	Tuolumne Meadows	S Tuolumne	8600	37	53	119	20	1947	Dept Water Resources
B0	9073	Turlock	WB Stanislaus	104	37	29	120	51	1893	Carl A. Pearson
B0	9073-01	Turlock 5 SW	Stanislaus	76	37	28	120	55	1958	Chatom Co. Ltd.
B0	9073-02	Turlock 8 WSW	Stanislaus	60	37	27	120	58	1958	Herbert Ellis
C0	9145	US Cotton Field Sta	Kern	367	35	32	119	17	1922	US Dept. Agriculture
B7		Upper Chiquito	Madera	6800	37	30	119	24	1962	US Forest Service
D1	9189	Upper Tres Pinos	WB San Benito	2050	36	38	121	02	1940	Eldon Fancher
B8	9238-01	Valley View Mine	San Benito	1575	36	38	120	56	1960	Closed June, 1962
B7	9301	Vernilion Valley	S Fresno	7520	37	22	118	59	1947	So Calif Edison Co
B0	9302-01	Vernalis 3 SE	Stanislaus	69	37	37	121	13	1958	See Maze Bridge 2 S
C0	9304	Vestal	Tulare	500	35	50	119	05	1920	So Calif Edison Co

TABLE A-1
PRECIPITATION STATION INDEX (Continued)

Drainage Basin	Alpha Order Number	Station Name	County	Elev	Lat.		Long.		Record Began	Observer
					Deg.	Min.	Deg.	Min.		
C0	9367	Visalia	WB Tulare	354	36	20	119	18	1903	Tulare Co. C of C
C0	9369	Visalia 4 E	Tulare	357	36	20	119	13	1959	J. V. Pimentel
C0	9452	Wasco	WB Kern	333	35	36	119	20	1899	Kern Co Fstry & FD
B5	9482	Wawona RS	WB Mariposa	3965	37	32	119	40	1934	US Natl Park Service
C5	9512	Weldon 1 WSW	WB Kern	2680	35	40	118	18	1940	Vernon J. Blount
C0	9535	West Camp SLF	Kings	290	35	51	119	53	1959	South Lake Farms
B6		Westfall RS	Madera	4795	37	27	119	39	1958	US Forest Service
C0	9560	Westhaven	WB Fresno	285	36	13	119	59	1925	Boston Ranch Co
B0	9565	Westley	Stanislaus	85	37	33	121	12	1928	W. Stanislaus Irr Dist
C5	9602	Wet Meadow	S Tulare	9200	36	22	118	32	1959	Corps of Engineers
C0		Wilbur Ditch	Kings	210	35	56	119	45	1961	South Lake Farms
C1	9749	Wishon Res	Fresno	6600	37	01	118	58	1957	PG&E Co
C5	9754	Wofford Heights	WB Kern	2700	35	43	118	27	1894	James H. Jorgensen
C1	9773	Woodchuck Meadow	S Fresno	9200	37	02	118	54	1955	Corps of Engineers
C4	9805	Woody	Kern	1630	35	42	118	51	1953	Kern Co Fstry & FD
B5	9855	Yosemite Natl Park	WB Mariposa	3985	37	45	119	35	1904	US Natl Park Service

TABLE A-4
MONTHLY PRECIPITATION
(In inches)

Gauche Bain	Alpha Order Number	Station Name	Seasonal Total	1962											
				July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
CO 0009		Academy	14.39	.06	.00	.04	.03	.00	.34	3.85	2.42	2.69	3.51	.58	.00
86 0019		Abraham 2 NW	29.77	.07	.07	.07	1.82	1.46	7.70	7.70	7.70	4.66	5.94	1.18	.11
CO 0204		Angola	6.27	.00	.00	.08	.09	.00	.03	.60	1.45	1.40	1.75	.17	.70
C7 0215		Annette	8.04	.00	.00	.00	.44	.00	.22	1.62	2.38	2.00	1.23	.15	.00
96 0239		Apache Camp	6.80	.00	.00	.00	.13	.00	.00	.07	2.67	1.65	1.97	.29	.02
CO 0332		Arvin	5.65	.00	.00	.03	.25	T	.00	.18	1.36	1.27	1.13	1.13	.30
CO 0332-02		Arvin Frick	4.52	.06	.00	.08	.00	.02	.25	3.11	1.32	3.12	.93	.55	.04
C2 0343		Ash Mountain	29.61	.06	.00	.21	.91	.15	.01	6.37	7.33	4.89	8.54	1.07	.07
80 0374		Atwater Craig	14.19	T	.00	T	.41	.28	2.06	1.31	4.53	1.87	3.34	.32	.07
C2 0374		Atwell	42.02	.00	.00	.00	.00	.00	.00	July 26, 1962 to July 26, 1963					
B7 0379		Auberry	24.15	.15	T	.03	1.27	.11	.55	7.27	4.68	4.60	4.71	.76	.02
B7 0381		Auberry Valley	22.82	.00	.00	T	1.50	.05	.80	4.85	4.70	5.50	.50	.10	.10
CO 0396-02		Avenal-Walden	6.33	.00	.00	.00	.12	.00	.23	1.13	2.76	.64	.58	.86	.01
C7 0399		Avenal Orchard Ranch	5.88	.00	.00	.00	.10	.00	.12	1.22	1.70	.68	1.32	.68	.06
C7 0399-01		Avenal S SW	11.91	.00	.00	.00	.53	.00	.45	3.11	3.55	1.91	1.46	.83	.07
C7 0399-02		Avenal 6 SSW	9.25	.00	.00	.00	.35	.00	.35	1.97	3.48	1.18	1.15	.74	.03
C2 0422		Badger	23.46	.00	.00	.13	1.19	.13	.00	8.68	2.98	3.65	5.99	.63	.08
85 0425		Badger Pass	43.75	.00	.00	.00	.00	.00	.00	April 22, 1962 to April 28, 1963					
85 0430		Badgy	25.76	.20	.00	.05	2.50	.27	3.08	4.55	3.25	5.39	6.17	.00	.36
CO 0440		Bakersfield 1 W	4.61	.00	.00	T	.12	.00	.00	.12	1.19	1.39	1.17	.26	.36
CO 0442		Bakersfield WB Airport	4.55	.00	.00	.02	.23	T	T	.12	1.54	1.25	.85	.26	.28
C1 0449		Balch Power House RPD	31.89	.03	.00	.11	1.47	.18	.05	10.93	5.82	4.77	7.20	.65	.68
C1 0534		Barton Flat	26.23	.00	.00	.00	.15	.26	.51	July 23, 1962 to July 23, 1963					
85 0570		Bear Valley Tubrucco	25.81	.00	.00	.00	.15	2.65	.00	4.56	3.06	2.88	6.99	1.15	.00
B3 0573		Bearley Dam	40.54	.30	.16	.35	2.98	1.05	2.66	5.91	8.67	6.08	8.24	3.70	.74
C2 0596		Beartop Meadow	52.31	.00	.00	.00	.00	.00	.00	July 23, 1962 to July 23, 1963					
B4 0617		Beehive Meadow	53.94	.00	.00	.00	.00	.00	.00	September 12, 1962 to September 12, 1963					
CO 0631		Bellevue	4.70	.00	.00	.04	.25	.00	.00	.02	1.38	1.01	.89	.56	.55
V2 0684		Bennett Insp Sta	8.56	.00	.00	.52	.01	.01	.01	1.03	2.64	1.64	.52	.87	.86
80 0688-02		Berenda 2 N	11.87	.00	.00	.02	.60	.13	2.07	1.37	2.54	1.82	2.80	0.52	T
B7 0755		Big Creek PH No. 1	38.29	.03	.00	.42	1.54	.32	.25	12.03	5.29	5.97	8.08	3.63	.73
B7 0755-01		Big Creek PH No. 2	31.63	.10	.00	.52	1.30	.22	.31	9.82	4.71	5.73	6.87	1.76	.29
B7 0755-02		Big Creek PH No. 3	27.40	.07	.00	.40	1.18	.19	.31	6.79	4.21	5.28	7.73	1.30	.14
B7 0755-05		Big Creek PH No. 8	25.13	.10	.00	.16	1.20	.20	.33	10.20	4.21	5.28	7.73	1.30	.14
V2 0767		Big Pine Creek	24.62	.00	.00	.00	.00	.00	.00	October 29, 1962 to October 23, 1963					
V2 0776		Big Pine PH No. 3	11.54	.00	.00	.54	.00	.00	.00	3.45	4.12	1.51	.77	.33	.82
V2 0819		Bishop Creek Intake 2 R	21.90	.28	.00	.90	.05	.08	.00	8.65	2.30	2.85	2.35	1.19	3.25
C1 0821		Bishop Pass Snow Course	58.30	.00	.00	.00	.00	.00	.00	September 24, 1962 to October 1, 1963					
V2 0824		Bishop Union Carbide	19.71	.22	.00	1.19	.51	.00	.00	11.01	2.60	2.01	.65	1.27	.00
C6 0825-01		Bitter Creek	2.05	.00	.00	.00	.00	.00	.00	September 15, 1962 to June 30, 1964					
CO 0875		Blackwells Corner	3.42	.00	.00	.00	.00	.00	.03	.27	1.38	.27	.77	.11	.59
C1 1069-01		Blaugame	20.07	.05	.00	.17	1.17	.08	.37	4.14	4.43	4.11	.47	.80	T
01 1170		Bretz Mill	37.98	.00	.00	.00	2.06	.00	.00	15.67	8.13	5.02	6.50	.60	.00
CO 1174		Buena Vista M	3.82	.00	.00	.00	.14	.00	.00	T	1.18	1.04	.60	.49	.37
CO 1175		Buena Vista Ranch M & L 2	3.80	.00	.00	.00	.08	.00	.00	.00	1.14	.64	1.77	.00	.17
CO 1199-01		Buena Vista Ranch M & L 2	4.02	.00	.00	.00	.14	.00	.00	.00	1.14	1.14	1.35	.00	.28
CO 1244		Burgess Corral	5.85	.00	.00	.00	.00	.00	.00	September 15, 1962 to June 30, 1963					
82 1277		Butterwallow	61.96	.09	.00	.28	7.36	1.34	3.82	11.39	11.27	8.61	13.04	3.71	1.05
B3 1280		Calaveras Ranger Sta	M	.00	.10	5.68	1.09	3.04	14.64	4.84	8.44	9.59	2.78	1.26	.64
CA 1300		Calif Hot Springs RS	M	.00	.00	.00	.13	.04	.00	4.38	5.38	4.01	5.14	.64	.64
C3 1425		Camp Nelson	28.70	.00	.00	.00	.00	.00	.00	8.00	9.70	4.64	5.17	.88	.75
CO 1479		Cannfield Ranch	3.88	.00	.00	.00	.18	.00	.00	T	1.00	1.02	.80	.45	.43
V7 1488		Cantil	1.79	.00	.00	.00	.05	.00	.00	T	.90	.51	T	.00	.13
CO 1490		Cantua Ranch	8.51E	.00E	.00E	.00E	.00	.00E	2.35	.60	3.35	.35	1.68	.17	.00E
CO 1557		Caruthers 4 E	8.48E	.00	.00	.13	.28	.04E	.32	.86	2.52	1.37	2.57	.25	.14
80 1580		Castle AFB	14.14	T	.00	.40	.00	.00	.00	2.89	2.45	1.87	2.82	.44	.05
88 1583		Castle Rock Rad Lab	(R) 10.4	.00	.00	T	.91	.25	1.54	1.09	2.58	1.44	1.89	.34	.00
B5 1588		Cathay Bull Run Ranch RPD	24.50	T	T	.10	2.00	.29	2.94	3.06	4.51	4.35	6.33	.91	.01
B5 1588-01		Cathay Meyer Ranch	31.68E	.00E	.00E	.00E	2.50	.47	3.15	4.70	6.00	5.35	7.62	1.70	.19
B5 1588-03		Cathay 3 NW	24.87	.00	.00	.00	2.22	.45	3.25	4.33	3.78	4.52	5.22	1.10	.00
B6 1590		Cathay Sawyer Ranch	25.32	.03	.61	.00	2.00	.39	2.72	3.54	4.45	4.27	5.36	2.50	.02
B6 1591		Cathay Stonehouse	23.24	.00	.00	.00	2.12	.33	2.92	3.90	4.18	3.70	5.14	.93	.02
B4 1697		Cherry Valley Dam	52.34	.06	.11	.25	2.73	.88	3.34	10.26	12.73	6.90	9.83	3.56	1.69
B7 1737		Chiquito Creek	54.62	.00	.00	.00	.28	.00	.20	1.16	2.50	1.59	1.44	.65	.23
03 1743		Chilane Hatch Ranch	8.05	.00	.00	.00	.28	.00	.09	.46	2.90	2.04	1.85	.75	.20
C7 1743-02		Chilane Weissman	M	.00	.00	.00	.10	.00	.00	.64	2.35	2.19	1.68	.04	.11
C2 1754		Chuchupate Ranger Sta	M	.00	.00	.00	.10	.00	.00	.64	2.35	2.19	1.68	.04	.11
CO 1844		Clover Meadows GS	54.84	.00	.00	.00	.04	T	1.36	1.85	2.35	.70	1.25	.64	.08
CO 1864		Coalinga	8.27	.00	.00	.00	.05	.00	.180	2.45	3.68	.67	.49	.06	.06
CO 1864-02		Coalinga CDF	6.24	.00	.00	.00	.47	.00	2.85	2.73	3.76	2.67	2.02	.63	.04
CO 1867		Coalinga Roberts Ranch	7.04	.00	.00	.00	.08	.00	1.23	1.54	1.90	.59	.91	.74	.09
C7 1869		Coalinga 14 NW	15.29	.00	.00	.00	.17	.41	.20	2.78	3.80	3.46	2.35	2.00	.36
B6 1878		Coarsegold	28.16	.12	.03	.22	1.77	.24	2.16	5.38	6.45	4.78	7.03	.80	.05
CO 1885		Cott Ranch Hdqrs	8.04	.00	.00	.00	.00	.00	.00	3.31	.84	4.39	.19	.18	.18
B4 1904		Cold Springs	47.01E	.30E	.15E	.25E	3.82	.95	3.79	7.72	7.12	5.82	11.07	4.22	1.80
B3 2003		Copperopolis	78.55	.15	.00	.05	3.30	.92	2.76	5.80	3.16	4.45	6.71	.79	.46
CO 2012		Corcoran Irrig Dist	6.54	.00	.00	.00	.05	.00	.04	.48	2.22	1.20	1.80	.48	.27
CO 2012		Corcoran El Rico 1	6.53	.00	.00	.00	.06	.00	.09	.36	2.24	1.04	2.22	.21	.11
CO 2013-05		Corcoran El Rico 33	7.36	.00	.00	.17	.08	.00	.06	.24	2.41	.99	1.89	.83	.69
V2 2069		Cottonwood Creek	20.49	.00	.00	.00	.00	.00	.00	October 25, 1962 to October 17, 1963					
V2 2071		Cottonwood Gates	10.34	.00	.00	.10	.00	.00	.05	4.80	3.40	1.09	.13	.02	.75
B5 2072		Coulterville FFS	29.12E	.23	.00	.04	2.12	.61	2.52	3.65	6.59	5.24E	6.05	1.99	.08
B5 2072-05		Coulterville S E	8.04	.00	.00	.12	3.82	.73	1.34	5.26	2.28	7.58	1.99	.16	.16
C5 2114		Craftree Meadow	28.30	.00	.00	.00	.00	.00	.00	September 17, 1962 to September 21, 1963					
B7 2122		Crane Valley PH	43.26	.24	.05	.15	2.10	.29	.74	14.32	8.82	6.77	7.83	1.61	.34
V2 2181		Crowley Lake	17.08	.10	T	.54	.29	T	T	7.26	4.28	2.21	1.11	.42	.87
C6 2222		Cummings Valley	8.34	.00	.00	.00	.33	.01	.00	.00	2.71	1.87	2.30	.40	.72
06 2236		Cuyama	M	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00
06 2248		Cuyama Ranch	8.36	.00	.00	.00	.00	.00	.00	.22	1.39	.93	.65	.57	.10
B6 2288		Dauilton	14.18	.00	.00	.00	.85	.15	1.50	2.70	1.50	2.57	4.24	.67	.00
CO 2346		Del Puerto Rd Camp (R) CD (P)	6.41	.00	.00	.15	.11	.00	T	.23	1.48	1			

TABLE A-2
MONTHLY PRECIPITATION (Continued)

(In inches)

Drainage Basin	Alpha Order Number	Station Name	Seasonal Total	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
C0 2440-01		Dimuba Alta Irrig Dist	12.05	.00	.00	.26	.46	.04	.12	2.84	2.09	2.29	3.39	.27	.34	
C7 2464		Domengine Ranch	9.00	.00	.00	.00	.12	.00	2.23	1.75	1.94	1.09	1.22	.28	.07	
C7 2464-01		Domengine Spring	13.55	.00E	.00E	.00E	.00E	.00E	3.25	1.75	5.83	1.77	2.00	.40	.00E	
B4 2471		Don Pedro Reservoir	21.52	.16	.00	.05	1.68	.45	3.37	3.97	3.37	3.34	4.22	.94	.13	
S 2492		Doublebunk Meadow	36.90					July 25, 1962 to	July 1, 1963							
B5 2539		Dudley's	C0 39.95	.37	T	.06	3.18	.70	3.20	9.30	6.36	6.93	7.58	1.95	.24	
B4 2609		Early Intake FH	37.12	.27	.02	.14	2.84	.64	2.50	6.09	6.68	6.22	7.63	2.68	1.41	
C1 2653		East Vidette Meadow	S 23.82					August 1, 1962 to	August 24, 1963							
C0 2756		Elkhorn Standard Ranch	C0 30.27	.69	.20	1.90	.87	.55	.88	9.60	2.61	4.15	4.43	2.52	1.95	
C7 2785		El Rancho Cantua	7.34E	.00	.00	.00	.00	.00	2.60	1.70	1.32	1.47	.25E	.00E	.00E	
B0 2820		El Solio Ranch	10.97	.00	.00	.00	.47	.35	1.86	1.44	2.82	1.75	1.82	.30	.16	
B0 2860		Escallon Swanson	13.55E	.00E	.00E	.02	1.24	.60	2.20	.68	3.12	1.99	3.37	.32	.01	
B0 2909		Eugene	(R) 16.71	.02	.00	.02	1.52	.55	2.14	.95	3.23	3.70	3.84	.44	.00	
B5 2920		Exchequer Reservoir	C0 20.13	.09	.00	.04	1.39	.32	2.86	2.36	3.58	4.14	4.06	1.26	.03	
C0 2922		Exeter Fauer Ranch	HPD 10.03	.00	.00	.18	.37	.00	.00	2.34	1.87	2.07	2.91	1.16	.13	
B0 2968		Fancher Ranch Camp 3	12.74	.00	.00	.00	.86	1.4	2.02	1.45	3.16	1.91	2.80	.40	.00	
C7 3005		Fellows	8.90	.00	.00	.00	.73	.03	.00	3.01	2.98	1.16	.88	1.30	.50	
B0 3063		Firebaugh 9 W	11.39E	T	T	.00	T	1.27	.93	1.28	4.26	2.00E	1.50E	.00	.15	
C0 3083		Five Points 5 SSW	4.585E	.00	.00	.00	.17	.00	1.20	.81	1.64	.50	1.20E	.33	.00	
C0 3084		Five Points Diener	5.97	.00	.00	.00	.00	.20	.00	.75	.47	1.69	.37	1.12	.37	
B7 3093		Fluence Lake	HPD 36.89	1.13	.00	.88	1.39	.30	1.4	12.09	3.76	6.21	6.06	4.01	1.00	
C0 3257		Fresno WB Airport	BCD 11.59	T	.00	T	2.55	.26	1.85	4.80	5.49	5.36	3.07	.80	.16	
B7 3261		Frant Government Camp	C0 16.24	.00	.00	.18	1.22	.08	.72	2.41	3.26	3.28	4.47	.58	.04	
W0 3369		Gem Lake	C0 21.81	.56	.40	.75	.95	.44	.85	5.55	1.20	3.46	3.85	2.00	1.80	
B5 3387		Gerber Ranch	C0 24.09E	.00	.00	T	3.87	.22	1.78	4.64	5.47	3.17	4.10	.71	.13E	
C7 3397		Giant Forest	HPD 46.58	.00	.00	.48	1.73	.33	.00	11.33	12.73	6.62	10.36	2.07	.80	
D1 3422		Gilroy 14 ENE	C0 24.99	.00	T	T	2.55	.26	1.85	4.80	5.49	5.36	3.07	.80	.16	
C0 3428-01		Gin Yard	3.32	.00	.00	.00	.20	.00	.00	.00	1.24	.47	1.34	.00	.07	
C0 3463		Glenville	C0 11.48	.00	.00	.03	.00	.00	.00	1.10	3.22	2.97	2.95	.57	.64	
C0 3465		Glenville Fulton RS	HPD M	.00	.00	.00	.69	.00	.00	*	36.49	.81	.81	.56	.42	
C0 3512		Gonford Ford Mill	3.74	.00	.00	.00	.13	.00	.00	T	1.01	.00	.00	.00	.00	
B4 3528		Grace Meadow	S 42.64	.00	.00	.00	.00	.00	.00	September 16, 1962 to	September 16, 1963					
C1 3548		Granite Basin	S 7.84							August 6, 1962 to	August 21, 1963					
C1 3551		Grant Grove	HPD 41.07	T	.00	.24	1.75	.16	.00	10.07	10.03	6.19	10.69	1.64	.19	
B5 3612-03		Green Valley Ranch	37.48	.28	T	T	3.46	.85	3.23	6.08	8.98	5.68	8.23	2.13	.57	
B4 3669		Groveland 2	HPD M	.30	.00	.07	3.81	.80	3.53							
B4 3672		Groveland RS	42.77	.20	.00	.07	2.38	.80	3.61	8.23	10.96	5.92	8.05	1.98	.57	
B5 3690-02		Gustafson 5 SW	15.43	.00	.00	.22	.20	.00	1.40	2.65	.47	1.73	4.17	.27	.08	
B0 3690-04		Gustine Snyder	16.07	.00	.00	.00	.20	.19	.47	3.88	4.15	1.82	3.49	.20	.07	
B0		Gustine 7 SEW	14.15	.00	.00	.00	.19	.12	1.48	4.14	2.64	1.78	3.58	.18	.04	
B0 3694		Gustine Avonset	14.22	.00	.00	.00	.10	.14	1.46	3.72	3.08	2.08	3.44	.17	.07	
W7 3710		Haivce	C0 6.81	.00	.00	.54	T	.00	.09	.97	2.78	1.44	.04	T	.95	
C0 3747		Hanford	C0 8.15	.00	.00	.01	.10	.00	.19	1.19	1.48	3.17	2.88	.37	.68	
C1 3811-11		Harlett Basin	33.64E	.00	.00	.00	2.04E	.00	.00	11.80E	8.23	4.77	6.25E	.55E	.00	
D1 3925		Hernandez 2NW	C0 17.23	.00	.00	.02	1.10	.00	2.17	3.12	3.10	3.73	2.95	.73	.31	
D1 3928		Hernandez 7 SE	HPD 19.09	.00	.00	.00	.97	.00	2.70	4.46	3.98	2.87	3.30	.52	.29	
B4 3938		Hight Hetchy	C0 40.08	.20	.24	.74	2.20	1.04	1.66	6.51	7.36	6.07	8.13	1.36	2.77	
B4 3948		Hidlen Valley	35.17	.09	.00	.09	2.75	.82	3.11	6.33	6.93	5.41	7.79	.88	.12	
B2 3952		Highland Lakes	S 35.79					July 10, 1962 to	July 23, 1963							
B0 3981		Hilmar	H	-	-	-	.16	.27	1.67	1.46	-	-	-	-	-	
C2 4012		Hockett Meadows	S 42.23	.00	.00	.02	.06	.00	.04	.53	1.98	1.09	1.84	.23	.80	
C0 4061-01		Homeland Dist Sec 9	6.56	.00	.00	.00	.05	.00	.03	3.81	.00	1.40	.20	.89	.00	
C0 4061-02		Homeland Dist Sec 17	5.41	.00	.00	.00	.05	.00	.00	.27	1.64	.73	1.12	.23	.50	
C0 4061-03		Homeland Dist Sec 34	4.56	.00	.00	.02	.05	.00	.00	.00	.00	.00	.00	.00	.00	
B5		Hornitos	R 18.13E	.00	.00	.00	1.50	.23	2.34	2.97	2.81	3.40	4.00	.83	.05E	
B5 4102-01		Hornitos Erickson Ranch	24.17E	.15	.00E	.10	2.00	.51	2.97	2.42	5.76	4.55	5.07	.64	.00E	
B5 4103		Hornitos Giles Ranch	24.64	.05	.00	.05	1.64	.59	2.83	3.57	4.54	.78	.06			
C3 4120		Hossack	S 45.93					October 10, 1962 to	July 10, 1963							
B4 4148		Huckleberry Lake	S 62.80					September 20, 1962 to	September 20, 1963							
B3 4170		Hunters Dam	C0 P	52.45	.14	T	.13	5.96	1.10	3.17	10.12	9.96	8.06	10.00	2.88	1.30
B7 4176		Huntington Lake	HPD SCE b	42.51	.10	.00	1.02	2.10	.75	.27	10.83	5.63	8.23	9.73	.03	.80
C7 4204		Idria	C0 (R)	14.61	.00	.00	.60	.03	2.31	2.91	2.65	2.61	2.73	.40	.37	
W2 4235		Independence Union Vly	HPD M	.28	.05	.84	.68	.10	.14	-	-	3.67	3.83	2.91	2.77	
B5 4246		Indian Gulch	20.77E	.00E	.00E	.1D	1.50	.36	2.96	1.98	4.78	3.67	4.65	.72	.05	
W7 4278		Inyokern	C0 1.84	.00	.00	.00	.00	.02	.15	.73	.84	.06	T	.04	.04	
C5 4303		Isabella Dam	(R) 8.62	.00	.00	.00	.13	.03	1.52	3.06	2.06	1.07	.13	.72	.00	
B5 4369		Jerseydale GS	52.04	.28	.00	.38	3.30	.93	2.14	11.39	11.76	6.76	11.46	3.04	.58	
C5 4389		Johnsedale	C0 27.00E	.00	.00	.05	.41	T	.00E	7.31	10.63	3.95	3.43	.76	.46	
B7 4442		Kaiser Meadows	S 48.87					June 19, 1962 to	June 25, 1963							
C2 4452		Kaweah PH No. 3	b 27.31	.04	.00	.22	.82	.07	.05	7.94	4.33	4.56	8.16	1.13	.09	
C5 4463		Keane	7.56	.00	.00	.21	.00	.00	.12	2.46	2.36	2.65	2.57	.44	.65	
B8 4508		Kerlinger	C0 7.52	.00	.00	T	.58	.31	1.33	.44	2.02	1.14	1.59	.11	.00	
C0 4510-02		Kerman 2 ESE	8.71	.00	.00	.21	.02	.89	1.23	3.15	2.20	.69	.32	.00	.00	
C0 4513		Kern Canyon	6.54	.00	.00	.01	.29	.00	.00	92.44	1.48	1.57	.49	.26	.00	
C5 4518		Kern River Intake No. 3	19.85	.00	.00	.03	.11	.00	T	4.59	8.65	3.00	2.47	.48	.52	
C5 4519		Kern R. Intake 3 SCE b	20.14	.00	.00	.01	.12	.00	.00	4.94	8.09	2.95	2.57	.44	.65	
C5 4520		Kern River PH No. 1	9.96E	.00	.00	T	.41	.00	.00	.52	2.79	2.00E	2.08	1.73	.43	
C5 4523		Kern River PH Ho. 3	12.68	.00	.00	.02	.06	.00	.00	4.83	2.39	3.02	1.88	.17	.33	
C5 4527-01		Kernville RS	9.26	.00	.00	.00	.00	.00	.00	1.99	2.12	1.12	.11	.22	.00	
C0 4534		Kettleman City 1 SSW	C0 6.61	.01	.00	.00	.05	.00	.04	.51	2.81	.58	1.54	.26	.00	
C0 4535		Kettleman Hills	5.41	.00	.00	.00	.08	.00	.19	1.01	1.76	.68	1.00	.75	.04	
C0 4536		Kettleman Station	C0 5.69	.00	.00	.00	.05	.00	.16	1.02	1.93	.56	1.27	.58	.02	
C5 4590		Kingsley Ferry 2 SE	C0 20.31	.01	.00	T	1.17	.28	3.33	1.19	5.46	3.00	5.26	.88	.23	
B3 4664		Lake Alpine	S 69.34					July 10, 1962 to	July 23, 1963							
B4 4679		Lake Eleanor	S 41.48	.22	.45	.18	2.02	.97	2.44	12.80	3.60	5.70	8.60	.00	1.50	
W2 4705		Lake Sabrina	S 21.61	.42	.00	1.40	.40	.18	.05	7.45	1.80	3.33	2.50	1.20	2.88	
D3 4767		La Panza Ranch	HPD 7.23	.00	.00	.00	.25	.00	.14	1.14	2.15	1.53	1.53	.34	.15	
B5 4861		Lebec	C0 8.92E	.00	.00	.20	.00	.00E	.04	2.68	3.00	2.67	3.04	.38	.00	
B5 4883		Le Grand Preston Ranch	R 18.92E	.00E	.00E	.05E	1.27	.13	2.58	3.50	3.05	3.39	4.36	.59	.00E	
B0 4884		Le Grand	C0 15.25	.00	.00	.00	1.00	.07	2.92	1.94	2.63	2.55	3.49	.65	.00	
B0 4884-05		Le Grand 5 N	13.45	.00	.00	.03	1.01	.13	2.30	1.82	2.27	2.37	3.03	.49	.00	
D2 4890		Lone Cove	11.88	T	.00	.11	.48	.00	.05	2.74	2.15	2.47	3.64	.18	.06	
B5 4953-02	</															

(In inches)

Damage Basis	Alpha Order Number	Station Name	Seasonal Total	Month												
				July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
C5	5098	Loraine	HPD	10.25	.00	.00	.00	.71	.00	.00	.56	3.55	2.36	2.19	.40	.48
V2	5111-09	La Aqueduct Intake		9.55	.00	.00	.37	.00	.12	.11	1.59	1.22	3.22	1.44	1.60	.16
B0	5116	Los Banos S		9.70	.00	.00	.00	.14	.12	.167	2.13	2.42	1.28	1.69	.22	.03
B0	5117	Los Banos Field Sta		10.34	.00	.00	.00	.20	.12	1.55	1.55	3.48	1.33	1.83	.19	.09
B0	5118	Los Banos	CD	9.70	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
B8	5119	Los Banos Arbutus Ranch		8.15	.00	.00	.00	.13	.10	1.76	1.38	1.66	.86	1.38	.16	.22
C2	5154	Lost Hills	HPD	10.15	.00	.00	.00	.00	.00	.00	.00	1.43	.80	.80	.42	.66
C1	5155-51	Lower Big Creek	AS	27.71E	.00	.00	.00	2.05E	.00	.00	8.08E	6.96E	4.20E	6.05E	.51E	.00
B4	5160	Lower Kibbey Ridge	AS	61.30	.00	.00	.00	September 26	1962	September 21	1963					
B6	5202	Lushmedades Ranch		37.39E	.24	.00E	.15	1.20E	.75E	2.85	8.10	8.81	3.12	7.95	2.11	.11
B0	5233	Madera	CD	9.62	.00	.00	.00	.47	.10	1.18	1.10	2.34	1.40	2.71	.32	.00
C2	5257	Mendenhall		4.33	.00	.00	.00	.18	.00	.00	14	1.17	1.47	.90	.25	.29
V2	5284	Mammoth Pass		65.95	.00	.00	.00	November 5	1962	October 10	1963					
B0	5297-02	Manteca Ho. 2		12.32	.00	.00	.00	1.07	.27	1.73	1.15	3.15	2.28	2.41	.23	.00
B0	5297-02	Manteca SP		12.32	.00	.00	.00	.00	.32	1.70	1.05	3.18	2.28	2.41	.23	.00
C7	5338	Maricopa	CD	3.60	.00	.00	.00	.43	.00	.00	.00	.70	.48	.97	.96	.00
C7	5338-01	Maricopa FS		2.81E	.00E	.00E	.00E	.34E	.00E	.00E	.00E	1.14	.89	.89	.00E	.00E
B5	5346	Mariposa	CD	37.80	.09	T	.06	2.79	.67	2.24	7.48	.95	4.58	8.14	1.52	.18
B5	5346-01	Mariposa Reynolds		38.91	.10	.00	.00	2.23	.71	2.95	8.65	10.12	4.03	8.20	1.60	.32
B4	5346-04	Mariposa S ES		38.91	.24	T	.03	2.25	.73	2.12	5.19	8.18	5.51	9.4	1.61	.10
B5	5348	Mariposa Circle 9 Ranch	(R)	35.98	.00	.02	.00	2.82	.44	3.43	7.89	6.23	5.44	8.09	1.27	.35
C5	5372-01	Martinez Spring		11.06E	.00E	.00E	.00E	.00E	.00E	2.25	.5	5.75	1.50	1.28	.28	.00E
B4	5400	Mather		10.21	.34	.00	.00	2.33	.77	1.59	6.63	5.49	4.48	6.88	2.24	1.63
B0	5401	Mattos Ranch		10.21	.00	.00	.00	.15	.10	1.66	6.26	3.19	1.65	1.87	.15	.07
B0	5402	Mattos Ranch		10.21	.00	.00	.00	.15	.10	1.66	6.26	3.19	1.65	1.87	.15	.07
B0	5403	Mattos Ranch		10.21	.00	.00	.00	.15	.10	1.66	6.26	3.19	1.65	1.87	.15	.07
B0	5404	Mattos Ranch		10.21	.00	.00	.00	.15	.10	1.66	6.26	3.19	1.65	1.87	.15	.07
B0	5405	Mattos Ranch		10.21	.00	.00	.00	.15	.10	1.66	6.26	3.19	1.65	1.87	.15	.07
B0	5406	Mattos Ranch		10.21	.00	.00	.00	.15	.10	1.66						

TABLE A-2
MONTHLY PRECIPITATION (Continued)
(In inches)

Drainage Basin	Alpha Order Number	Station Name	Seasonal Total	1966												
				July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
B6 7276	Raymond 12 NNE	b	26.58	.22	.00	.02	1.80	.42	1.26	8.15	2.81	4.52	6.23	1.10	.05	
C0 7288	Rector	b	9.13	.00	.05	.34	.00	.22	1.73	1.53	1.98	1.07	.18	.22		
C0 7290	Reedley MVD	b	10.89	.00	.00	.08	.42	.02	1.18	1.78	2.68	2.05	3.34	.17	.17	
B0 7300	Ripon	b	6.98	.00	.00	.00	.20	T	.34	.91	1.73	1.12	.88	.00	.04	
B0 7302	Riverdale	b	6.98	.00	.00	.00	.20	T	.34	.91	1.73	1.12	1.88	.75	.05	
V2 7510	Rock Creek	S	25.81	.01	.00	.03	October 15, 1962 to November 4, 1963						3.74	6.20	.91	.02
B6 7528	Rosary Village	S	22.70	.00	.00	.10	.22	.00	.00	.12	1.06	1.03	1.51	.47	.38	
C0 7555	Rosdale	S	4.89	.00	.00	.10	.22	.00	.00	.12	1.06	1.03	1.51	.47	.38	
B7 7560	Rose Marie Meadow	S	43.81	.00	.00	.10	July 3, 1962 to July 17, 1963									
C5 7579	Round Meadow	S	37.42	.00	.00	.10	July 26, 1962 to July 9, 1963									
B4 7623	Saches Springs	S	58.03	.00	.00	.00	September 25, 1962 to September 20, 1963						3.42	2.39	.35	.34
D1 7719	San Benito	HPD	14.48	.00	.00	.00	.56	.00	2.25	3.28	1.89	3.42	2.39	.35	.34	
Z2 7735	Sandberg NB	RCD	5.56	.00	.00	.00	.10	.00	T	.07	2.25	1.58	1.00	.02	.54	
C0 7753	San Emigdio Ranch	CD	7.82	.00	.00	T	.55	.00	.00	.02	2.29	1.72	2.20	1.04	T	
D1 7755	San Felipe Highway Sta	HPD	21.20	.00	.00	.00	1.67	.28	1.68	6.16	2.89	3.29	4.75	.37	.11	
C0 7800-02	Sanger 1 NE		13.15	.04	.00	.06	.72	.01	.38	2.60	2.89	4.24	3.66	.20	.13	
C0 7800-03	Sanger RS		10.78	.00	.00	.12	.00	.00	.35	2.51	2.10	2.03	3.34	.23	.10	
C0 7816	San Joaquin		6.318	.00E	.00E	.00E	.00E	.00E	1.37	.79	1.77	.76	1.53	.09	.00E	
C0 7817	San Joaquin MVD		5.86	.00	.00	.00	.15	.00	.53	.50	2.28	.90	1.38	.12	.00	
B7 8250-04	San Joaquin Exp Range	HPD	19.74	.05	.00	.13	1.49	.11	1.25	4.67	2.85	4.04	4.56	.51	.08	
B0 7836-01	San Juan Hdqrs M & L		9.56	.00	.00	.00	.40	.12	1.32	.75	3.27	1.28	1.65	.52	.25	
B8 7846	San Luis Dam	CD	10.35	.00	.00	T	.41	.14	1.13	.96	3.80	1.38	1.51	.76	.26	
B0 7855	San Luis Canal Co Hdq		8.26	.00	.00	.00	.12	.00	.13	.65	2.85	1.81	1.74	.48	.28	
D7 8259-02	Simmler R. W. Cooper		6.81	.00	.00	.00	.28	.00	.15	.35	2.53	1.51	1.48	.41	.10	
D7 8259-04	Simmler Maint. Sta		6.81	.00	.00	.00	.28	.00	.15	.35	2.53	1.51	1.48	.41	.10	
D2 8276	Slick Canyon	HPD	18.99	.00	.00	.00	.87	.03	2.86	3.75	4.33	2.86	2.81	.66	.12	
C6 8304	Smith Flat	S	3.85	.00	.00	.00	September 25, 1962 to June 30, 1963									
B5 8318	Snow Flat	S	55.42	.00	.00	.00	September 25, 1962 to July 16, 1963									
C1 8323-01	Sopadroit Saddle		37.728	.00	.00	.00	2.20	.00	.00	16.50	6.98E	4.49	6.50E	.60E	.00	
D7 8326	Soda Lake		6.76	.00	.00	.00	.27	.00	T	1.20	1.91	1.20	1.91	.24	.74	
B4 8353	Sonora	CD	33.31	.06	.00	.01	2.94	.93	2.67	3.99	7.75	5.97	6.79	1.43	.47	
C9 8355	Sonora Junction	HPD	6.59	.19	.48	.60	.53	.18	.61	.93	2.41	1.92	2.29	.30	.00	
C0 8375-50	South Belridge		3.39	.00	.00	.00	.11	.00	T	.07	1.33	.30	.70	.38	.50	
B0 8378	South Dos Palos		9.26	.00	.00	.00	.27	.08	1.56	1.08	3.06	1.23	1.45	.22	.31	
B5 8380	So Entrance Yosemite NP	CD	55.13	.27	.05	.33	2.69	.46	2.18	17.72	9.93	10.91	10.72	2.99	.88	
V2 8406	South Lake	S	25.74	.00	.00	.00	June 30, 1962 to June 30, 1963									
CD 8407-11	South Lake Farms Hdq		6.59	.00	.00	.00	.30	.09	.46	2.06	4.80	1.95	.39	.60		
B3 8450	Spring Gap Forebay	R	49.41	.50	.18	.17	.43	.33	V4.38	11.20	4.28	9.48	10.61	4.15	1.21	
C3 8455	Springville 7 ENE	CD	30.23	.00	.00	.12	.06	.20	.05	4.13	10.16	4.67	8.24	1.26	.34	
C3 8460	Springville RS	CD	16.05	.00	.00	.28	.53	T	.04	3.41	3.43	3.18	4.57	.31	.30	
C3 8463	Springville Tule Hdwrks	HPD	M	.00	.00	.32	1.09	.36	.06	6.73	3.37	5.88	8.93	1.49	.65	
C3 8469	Squaw Valley		21.40	.00	.00	.15	1.45	.05	1.16	6.73	3.37	5.88	8.93	1.49	.65	
C3 8499	Stanislaus Power Hse CD (P)		36.70	.10	.00	.30	4.07	.95	2.53	5.74	5.90	7.23	7.41	2.19	.28	
C1 8510	State Lakes	S	37.88	.00	.00	.00	August 7, 1962 to August 22, 1963									
C0 8520	Stevenson Dist Sec 33		6.81	.00	.00	.02	.12	.00	.06	.41	1.97	1.41	1.93	.34	.55	
C1 8620	Success Dam	(R)	9.98	.11	.00	.07	.29	.00	.00	.81	2.83	2.33	2.92	.23	.39	
C1 8643	Summit Meadow	S	51.31	.00	.00	.00	June 27, 1962 to July 15, 1963									
C7 8752	Summit M	HPD	M	.00	.00	.00	.27	.00	.00	.04	—	1.06	.64	1.36	.57	
C7 8755	Taft KTKR Radio	HPD	4.58	T	.00	T	.10	.00	T	.01	.86	.99	.83	1.14	.65	
C6 8826	Tehachapi	CD	5.45	.00	.00	.06	.13	.00	T	.27	1.29	1.49	1.46	.09	.66	
C6 8832	Tehachapi RS	HPD	5.97	.00	.00	.03	.24	.00	.00	.27	1.78	1.43	1.46	.06	.70	
C6 8839	Tejon Rancho	CD	9.11	.00	.00	T	.88	T	T	.05	2.41	1.92	2.62	.81	.42	
C2 8869	Terminus Dam	R	13.36	T	.00	.14	.53	.00	.04	2.05	3.21	2.95	4.09	.27	.08	
C7 8875	Thirty-Two Corral		11.57E	.00E	.00E	.00E	.00E	.00E	2.50	V5.40	1.75	1.45	.47	.00E	.00E	
C2 8912	Three Rivers 6 SE	HPD	19.82	.00	.00	.27	.73	.07	.05	5.24	2.33	3.52	6.42	.87	.32	
C2 8914	Three Rivers Edison PH 2	CD	23.92	.01	.00	.17	.78	.03	.03	7.93	3.44	3.80	6.91	.77	.05	
C2 8917	Three Rivers Edison PH 1	HPD	22.86	.01	.00	.22	.77	.08	.04	8.12	2.47	3.89	6.41	.76	.09	
B0 8987	Tracy 2 SSE	HPD	7.96	.00	.00	.00	.55	.33	1.15	.99	1.42	1.36	2.01	.15	.00	
B8 8999	Tracy Carbons	CD	8.80	.00	.00	.00	.65	.34	1.29	1.07	1.82	1.41	2.11	.11	T	
C0 9006	Tranquillity Glotz		7.32	.00	.00	.00	.10	T	2.16	1.43	1.91	1.12	1.21	.18	.21	
C0 9010	Traver 4 ESE		9.53	.00	.00	.30	.43	.01	.21	.95	2.27	2.08	3.00	.10	.18	
C1 9025	Trimmer RS	b	24.48	.02	.00	.11	2.03	T	.08	7.28	6.76	1.78	5.92	.50	.00	
C0 9051	Tulare	b	8.83	.00	.00	.23	.13	.00	.10	1.32	.54	2.09	2.90	.14	.18	
C0 9051-04	Tulare Dist Sec 27		5.92	.00	.00	.00	.08	.00	.06	.38	2.07	.79	1.71	.71	.12	
C0 9052	Tulefield	CD	4.53	.00	.00	.00	.22	.00	.00	.02	1.33	1.31	1.05	.60	T	
C3 9059	Tule River Intake	b	30.23	.00	.00	.13	1.03	.22	.06	8.93	5.31	4.64	8.25	1.27	.39	
C3 9060	Tule River PH	b	18.07	.00	.00	.14	6.03	.06	.04	3.60	5.93	4.42	5.42	.46	.37	
C3 9061	Tulose RS		22.26	.08	.00	.03	1.58	.91	2.48	1.47	5.74	3.63	5.20	.95	.19	
B4 9063	Tuolumne Meadows	S	35.33	.00	.00	.00	June 25, 1962 to July 17, 1963									
B0 9073	Turlock	CD	12.86	.00	.00	T	.20	.27	1.49	1.35	3.69	2.25	3.27	.32	.02	
B0 9073-01	Turlock 5 SW	CD	16.35E	.00E	.00E	T	.25	.30	1.30	4.42	3.68	2.80	3.15	.25	.20	
B0 9073-02	Turlock 6 SW	CD	11.31E	.00E	.00E	T	.21	.21	1.43	1.29	3.03	1.92	2.88	.20	.20	
C0 9145	U.S. Cotton Field Sta		6.50	.00	.00	.05	.04	.00	.02	.17	2.14	1.49	1.40	.56	.63	
B7 9189	Upper Tres Pinos	HPD	13.38	.00	.00	.00	.71	.16	2.19	2.29	2.13	3.30	2.30	.30	.00	
B7 9301	Vernilion Valley	S	29.13	.00	.00	.22	.21	.00	.00	1.51	1.79	2.24	.82	.24	.82	
C0 9304	Vesal	CD	9.08	.00	.00	.02	.40	T	.05	.82	2.13	2.10	3.15	.22	.19	
C0 9367	Visalita	CD	9.83	.00	.00	.05	.36	T	.45	1.69	1.71	1.90	3.17	.18	.32	
C0 9452	Wasco	CD	7.15	.00	.00	.00	.09	.00	.00	.22	1.94	1.72	1.40	1.04	.74	
B5 9482	Wawona RS	HPD	M	.14	.21	2.05	.53	1.67	16.10	5.12	7.99	7.91	2.67	.44	.74	
C0 9512	Weldon 1 WSW	HPD	5.77	.00	.00	.00	.00	.00	.00	.00	.58	1.63	.51	.69	.29	
C0 9535	West Camp SLE		6.02	.00	.00	.00	.07	.00	.23	.25	2.72	.94	1.50	.29	.22	
B6 9560	Westfall RS		58.21	.03	.04	.37	2.45	.62	2.23	15.53	16.91	7.95	9.62	2.29	.17	
C0 9560	Westhaven	CD	6.01	.00	.00	.00	.07	.00	.23	.52	2.56	.50	1.37	.55	.21	
B0 9565	Westley	S	11.75	.00	.00	.00	.50	.33	1.81	2.09	2.90	1.87	1.96	.09	.20	
C0 9607	West Meadow	S	40.27	.00	.00	.00	July 14, 1962 to August 28, 1963									
C0 9608	Wilbur Ditch	b	7.20	.00	.00	.00	.40	.04	.04	.04	.04	1.13	1.81	.47	1.02	
C1 9749	Wishon Res	b	48.98	.03	.00	.67	1.80	.30	.20	16.73	8.89	7.72	9.95	2.13	.56	
C5 9754	Wofford Heights	CD	8.66	.00	.00	.04	.02	.00	.00	2.91	1.99	2.12	1.05	.23	.30	
C1 9773	Woodchuck Meadow	S	48.29	.00	.00	.00	July 12, 1962 to August 9, 1963									
C4 9805	Woody	S	10.18	.00	.00	.02	.58	.00	.00	.46	2.81	2.38	3.33	.34	.71	
B5 9855	Yosemite National Pk	HPD	39.76	.30	.13	.71	1.58	.85	1.23	10.06	6.50	7.76	7.09	2.73	.82	

TABLE A-3
MONTHLY TEMPERATURES

Drainage Basin	Alpha Order Number	Station Name	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
B6	0049	Ahwahnee J. NRM	Max 95 Min 60 Av Max 89.6 Av Min 66.0 Avg 77.8	97 59 80 30 89.2 65.7 77.4 65.2	94 56 60 30 86.7 65.2	88 86 56 30 76.9 65.2	86 79 33 23 69.7 68.1	79 22 23 10 59.9 66.8	82 70 20 29 66.8 59.8	78 29 22 22 57.9 57.9	74 86 92 40 71.4 77.4	86 92 40 48 54.6 56.9	95 105 55 55 81.0 90.5	105 105 55 55 98.8 98.8	
C0	0396-1	Avenal Walden	Max 107 Min 60 Av Max 102.1 Av Min 66.3 Avg 84.2	M 60 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	M 93 M 44 M 77.0M M 55.6M M 68.5M	
B5	0430	Bagby	Max 106 Min 58 Av Max 99.7 Av Min 62.9 Avg 81.3	106 54 52 42 98.9 57.9 80.2 76.8	102 96 42 31 95.7 80.0 76.8 64.4	96 86 31 28 80.0 70.2 64.4 55.9	86 78 28 32 70.2 61.2 55.9 49.4	78 65 32 34 61.2 57.2 49.4 44.4	65 78 34 32 57.2 69.5 44.4 39.0	78 70 32 34 69.5 62.3 39.0 39.3	70 76 34 34 62.3 60.9 39.3 52.1	76 82 34 34 60.9 50.6 52.1 55.3M	82 99 34 34 50.6 66.6 55.3 69.9	99 108 46 46 92.8M 92.8M	108 108 46 46 92.8M 92.8M
C0	1557	Caruthers 4 E	Max 101 Min 50 Av Max 96.2 Av Min 63.5 Avg 79.8	101 50 52 40 96.2 81.0 79.8 76.2	98 90 40 30 86.2 74.0 71.5 62.0	90 80 30 25 74.0 66.6 62.0 53.9	80 78 25 22 66.6 54.2 53.9 46.0	78 69 22 22 54.2 50.8 46.0 41.0	69 63 22 22 50.8 44.1 41.0 35.8	63 69 22 22 44.1 41.4 35.8 31.2	69 74 22 22 41.4 35.8 31.2 26.4	74 82 22 22 35.8 31.2 26.4 21.6	82 99 22 22 31.2 26.4 21.6 16.8	99 108 22 22 16.8 12.0 12.0 8.0	108 108 22 22 8.0 4.0 4.0 0.0
B0	1580	Castle AFB	Max 104 Min 54 Av Max 97.0 Av Min 61.4 Avg 79.2	104 54 53 40 97.0 88.6 79.2 77.2	103 97 40 30 93.3 80.6 77.2 72.6	97 91 30 21 88.6 76.1 72.6 63.2	91 80 21 18 76.1 69.9 63.2 56.8	80 70 18 16 69.9 67.2 56.8 52.0	70 65 16 12 65.2 61.2 52.0 48.0	65 76 12 10 61.2 57.2 48.0 44.0	76 76 10 10 57.2 54.0 44.0 40.0	76 82 10 10 54.0 50.0 40.0 36.0	82 99 10 10 50.0 46.0 36.0 32.0	99 104 10 10 46.0 42.0 32.0 28.0	104 104 10 10 42.0 38.0 28.0 24.0
B6	1590	Cathay Sawyer Ranch	Max 101 Min 50 Av Max 95.3 Av Min 61.9 Avg 78.6	101 50 52 40 95.3 88.5 78.6 77.0	98 90 40 30 88.5 73.4 77.0 72.8	90 80 30 25 73.4 60.2 72.8 61.7	80 72 25 22 60.2 52.2 61.7 50.7	72 65 22 22 52.2 44.2 50.7 48.0	65 74 22 22 44.2 36.2 48.0 41.2	74 72 22 22 36.2 30.2 41.2 33.8	72 82 22 22 30.2 24.2 33.8 28.0	82 99 22 22 24.2 18.2 28.0 21.0	99 108 22 22 18.2 12.2 21.0 14.0	108 108 22 22 12.2 8.0 14.0 10.0	108 108 22 22 8.0 4.0 10.0 6.0
B6	1591	Cathay Stonehouse	Max 101 Min 50 Av Max 94.6 Av Min 55.8 Avg 75.2	101 50 52 40 94.6 89.5 75.2 74.3	102 97 40 30 93.5 89.0 74.3 70.3	97 90 30 25 89.0 71.8 70.3 66.1	90 80 25 20 71.8 65.4 66.1 60.2	80 72 20 16 65.4 58.6 60.2 55.2	72 65 16 12 58.6 53.2 55.2 50.2	65 74 12 10 53.2 48.0 50.2 45.0	74 82 12 10 48.0 43.0 45.0 40.0	82 99 12 10 43.0 38.0 40.0 35.0	99 108 12 10 38.0 33.0 35.0 30.0	108 108 12 10 33.0 28.0 30.0 25.0	108 108 12 10 28.0 23.0 25.0 20.0
B4	1904	Cold Springs	Max 101 Min 50 Av Max 94.6 Av Min 55.8 Avg 75.2	101 50 52 40 94.6 89.5 75.2 74.3	102 97 40 30 93.5 89.0 74.3 70.3	97 90 30 25 89.0 71.8 70.3 66.1	90 80 25 20 71.8 65.4 66.1 60.2	80 72 20 16 65.4 58.6 60.2 55.2	72 65 16 12 58.6 53.2 55.2 50.2	65 74 12 10 53.2 48.0 50.2 45.0	74 82 12 10 48.0 43.0 45.0 40.0	82 99 12 10 43.0 38.0 40.0 35.0	99 108 12 10 38.0 33.0 35.0 30.0	108 108 12 10 33.0 28.0 30.0 25.0	108 108 12 10 28.0 23.0 25.0 20.0
C0	2013	Corcoran El Rico 1	Max 102 Min 51 Av Max 96.4 Av Min 56.2 Avg 76.3	102 51 46 46 96.4 93.6 76.3 74.6	102 91 46 46 93.6 88.8 74.6 70.4	91 84 46 46 88.8 76.0 70.4 60.6	84 74 46 46 76.0 60.6 60.6 45.3	74 66 46 46 60.6 55.1 45.3 38.9	66 72 46 46 55.1 50.8 38.9 35.1M	72 80 46 46 50.8 46.6 35.1 31.2	80 86 46 46 46.6 43.0 31.2 27.4	86 96 46 46 43.0 39.0 27.4 23.6	96 106 46 46 39.0 35.0 23.6 19.8	106 106 46 46 35.0 31.0 19.8 16.0	106 106 46 46 31.0 27.0 16.0 12.0
B5	2072	Coulterville FFS	Max 109 Min 56 Av Max 94.4 Av Min 64.2 Avg 79.3	109 56 55 52 94.4 91.8 79.3 77.2	100 95 55 41 91.8 86.8 77.2 72.8	95 89 41 30 86.8 72.2 72.8 60.8	89 82 30 26 72.2 65.1M 60.8 54.2M	82 72 26 25 65.1M 54.2M 54.2M 47.8M	72 63 25 24 54.2M 47.8M 47.8M 41.9	63 72 25 24 47.8M 41.9 41.9 35.1	72 80 25 24 41.9 35.1 35.1 31.2	80 86 25 24 35.1 31.2 31.2 27.4	86 96 25 24 31.2 27.4 27.4 23.6	96 106 25 24 27.4 23.6 23.6 19.8	106 106 25 24 23.6 19.8 19.8 16.0
B7	2122	Crane Valley PH	Max 97 Min 58 Av Max 90.0 Av Min 63.4 Avg 76.7	97 58 56 52 90.0 89.3 63.4 58.4	92 88 52 40 88.8 73.5 76.2 72.0	88 82 40 30 73.5 60.3 61.4 52.0	82 72 30 26 60.3 54.2 52.0 45.0	72 66 26 25 54.2 47.8 45.0 38.9	66 78 25 24 47.8 41.9 38.9 35.1	78 66 24 20 41.9 35.1 35.1 31.2	66 76 24 20 35.1 31.2 31.2 27.4	76 86 24 20 31.2 27.4 27.4 23.6	86 96 24 20 27.4 23.6 23.6 19.8	96 106 24 20 23.6 19.8 19.8 16.0	106 106 24 20 19.8 16.0 16.0 12.0
C6	2222	Cummings Valley	Max 94 Min 42 Av Max 87.2 Av Min 45.9 Avg 66.6	94 42 37 31 87.2 88.0 45.9 44.8	96 92 31 26 88.0 85.4 72.0 61.4	92 80 26 20 85.4 74.3 61.4 52.0	80 74 20 18 74.3 66.0 52.0 45.0	74 66 18 16 66.0 57.4 45.0 38.9	66 76 16 12 57.4 50.8 38.9 35.1	76 76 16 12 50.8 46.6 35.1 31.2	76 86 16 12 46.6 43.0 31.2 27.4	86 96 16 12 43.0 39.0 27.4 23.6	96 106 16 12 39.0 35.0 23.6 19.8	106 106 16 12 35.0 31.0 19.8 16.0	106 106 16 12 31.0 27.0 16.0 12.0
B8	2369	Del Puerto Road Camp	Max 106 Min 52 Av Max 97.3 Av Min 59.7 Avg 78.5	106 52 50 48 97.3 92.2 59.7 57.8	100 94 48 38 92.2 86.0 75.8 75.0	94 88 38 30 86.0 72.8 75.0 69.8	88 82 30 24 72.8 66.0 69.8 60.0	82 74 24 20 66.0 58.7 60.0 53.6	74 66 20 18 58.7 54.1 53.6 47.7	66 72 18 16 54.1 50.8 47.7 41.6	72 80 18 16 50.8 46.6 41.6 35.1	80 90 18 16 46.6 43.0 35.1 31.2	90 100 18 16 43.0 39.0 31.2 27.4	100 100 18 16 39.0 35.0 27.4 23.6	100 100 18 16 35.0 31.0 23.6 19.8
C0	2436	Di Giorgio	Max 106 Min 56 Av Max 99.8 Av Min 60.8 Avg 80.3	106 56 54 48 99.8 97.3 60.8 59.5	104 98 48 42 97.3 92.9 78.4 74.0	98 90 42 30 92.9 80.6 74.0 64.2	90 80 30 23 80.6 63.3 64.2 55.8	80 74 23 21 63.3 59.7 55.8 49.6	74 66 21 20 59.7 53.0 49.6 46.2	66 78 20 18 53.0 46.6 46.2 41.0	78 80 18 16 46.6 43.0 41.0 37.0	80 90 18 16 43.0 39.0 37.0 33.0	90 100 18 16 39.0 35.0 33.0 29.0	100 100 18 16 35.0 31.0 29.0 25.0	100 100 18 16 31.0 27.0 25.0 21.0
C7	2464	Domengine Ranch	Max 101 Min 57 Av Max 96.5 Av Min 59.1 Avg 82.8	101 57 54 52 96.5 94.2 59.1 53.0	102 101 52 40 94.2 87.5 80.1 78.5	101 92 40 39 87.5 74.8 78.5 63.7	92 82 39 34 74.8 66.9 63.7 58.9	82 72 34 25 66.9 57.6 58.9 51.0	72 65 25 20 57.6 53.0 51.0 45.0	65 80 20 18 53.0 46.6 45.0 39.0	80 76 18 16 46.6 43.0 39.0 35.0	76 86 18 16 43.0 39.0 35.0 31.0	86 96 18 16 39.0 35.0 31.0 27.0	96 106 18 16 35.0 31.0 27.0 23.0	106 106 18 16 31.0 27.0 23.0 19.0
B4	2473	Don Pedro Reservoir	Max 105 Min 53 Av Max 97.5 Av Min 63.7 Avg 80.6	105 53 53 50 97.5 94.2 63.7 61.7	104 99 50 42 99.6 95.3 78.5 73.9	99 97 42 30 95.3 80.6 73.9 63.7	97 86 30 27 80.6 66.9 63.7 58.9	86 78 27 23 66.9 59.2 58.9 55.9	78 65 23 20 59.2 54.5 55.9 51.0	65 78 20 18 54.5 46.6 51.0 45.0	78 80 18 16 46.6 43.0 45.0 41.0	80 90 18 16 43.0 39.0 41.0 37.0	90 100 18 16 39.0 35.0 37.0 33.0	100 100 18 16 35.0 31.0 33.0 29.0	100 100 18 16 31.0 27.0 29.0 25.0
C0	3084	Five Points Diener	Max 103 Min 58 Av Max 98.5 Av Min 62.5 Avg 80.5	103 58 58 52 98.5 94.7 62.5 61.7	102 101 52 40 94.7 89.9 78.2 73.8	101 91 40 34 89.9 84.0 73.8 68.5	91 84 34 26 84.0 75.0 68.5 55.5	84 71 26 22 75.0 65.7 55.5 47.2	71 65 22 21 65.7 57.0 47.2 42.0	65 73 21 18 57.0 50.8 42.0 37.0	73 80 18 16 50.8 46.6 37.0 33.0	80 90 18 16 46.6 43.0 33.0 29.0	90 100 18 16 43.0 39.0 29.0 25.0	100 100 18 16 39.0 35.0 25.0 21.0	100 100 18 16 35.0 31.0 21.0 17.0
B6	3948	Hidden Valley	Max 101 Min 58 Av Max 94.9 Av Min 64.7 Avg 79.8	101 58 56 50 94.9 94.9 64.7 63.7	101 101 56 50 94.9 94.9 79.2 75.8	101 92 50 42 94.9 89.9 75.8 70.1	92 83 42 30 89.9 75.3 70.1 63.7	83 75 30 26 75.3 66.5 63.7 58.9	75 67 26 23 66.5 61.7 58.9 55.9	67 78 23 20 61.7 55.4 55.9 51.0	78 70 20 18 55.4 49.6 51.0 46.6	70 80 18 16 49.6 46.6 46.6 43.0	80 90 18 16 46.6 43.0 43.0 39.0	90 100 18 16 43.0 39.0 39.0 35.0	100 100 18 16 39.0 35.0 35.0 31.0
B5	4103	Mornitos Giles Ranch	Max 101 Min 52 Av Max 94.3 Av Min 65.3 Avg 79.8	101 52 52 44 94.3 92.2 65.3 63.3	100 96 44 30 96.0 92.2 77.8 73.8	96 82 30 24 92.2 87.8 73.8 62.0	82 74 24 20 87.8 73.2 62.0 55.9	74 62 20 18 73.2 65.9 55.9 49.0	62 72 18 16 65.9 57.6 49.0 42.4	72 80 16 12 57.6 52.0 42.4 37.0	80 90 16 12 52.0 46.6 37.0 32.0	90 100 16 12 46.6 43.0 32.0 27.0	100 100 16 12 43.0 39.0 27.0 23.0	100 100 16 12 39.0 35.0 23.0 19.0	100 100 16 12 35.0 31.0 19.0 15.0

TABLE A-3
MONTHLY TEMPERATURES (Continued)

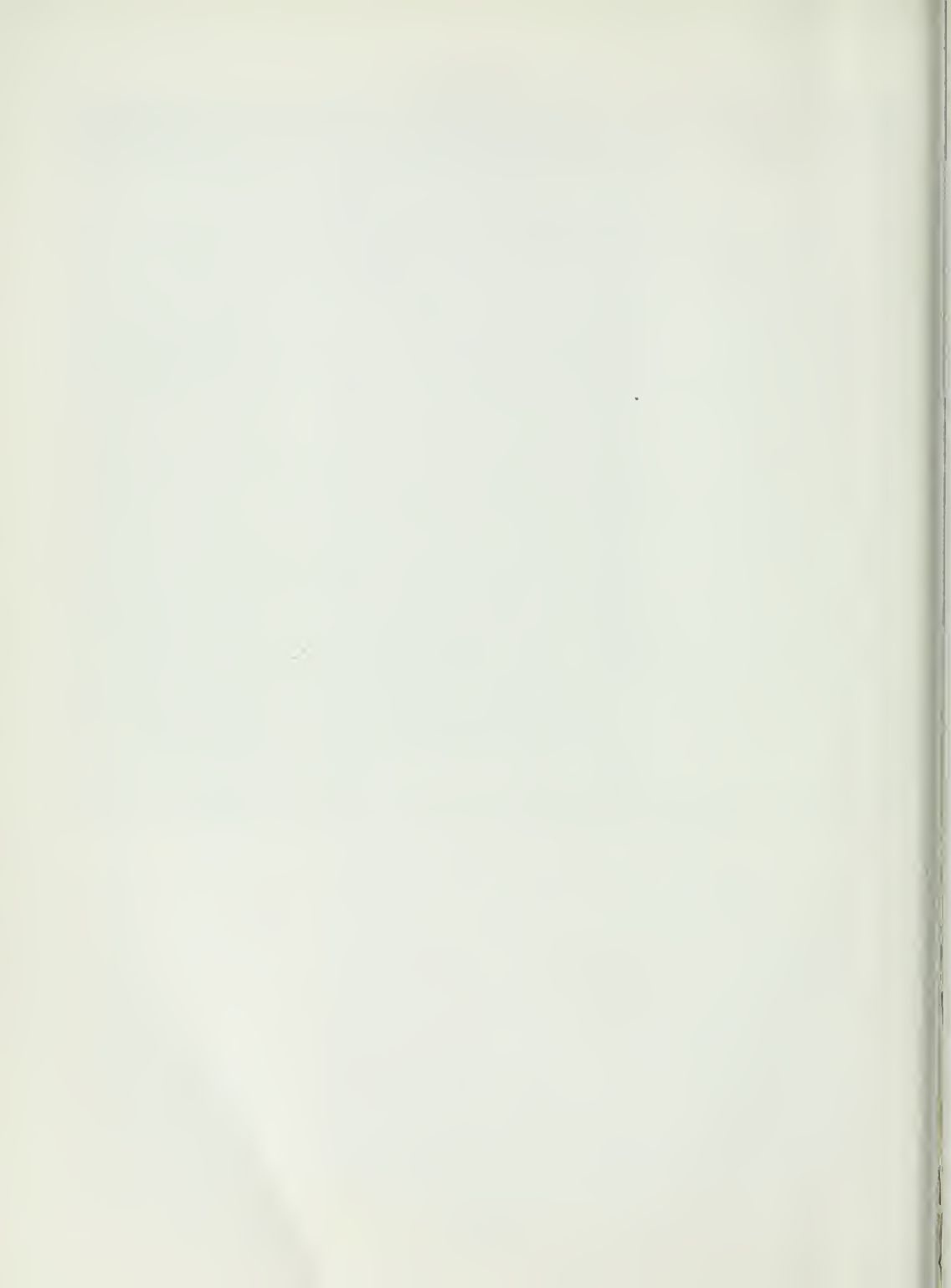
Discharge Station	Alpha Order Number	Station Name													
			July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
83 4170		Hunters Dam	Max	95	96	95	88	84	74	64	74	66	69	84	89
			Min	44	42	40	31	22	12	20	30	20	20	30	30
			Av Max	88.4	87.3	85.5	72.8	60.9	59.4	54.0	61.0	53.6	62.4	67.5	74.9
			Av Min	49.8	48.4	44.7	39.2	31.5	30.4	23.7	36.9	28.9	32.9	41.7	43.6
			Avg	69.1	67.8	65.1	56.0	46.2	45.0	38.8	48.9	41.2	42.6	54.6	59.2
C5 4303		Isabella Dam	Max	103	107	102	96	87	75	68	77	73	78	91	86
			Min	58	55	50	38	28	12	16	34	20	27	34	42
			Av Max	96.3	96.9	92.8	80.0	68.8	63.6	58.8	64.5	60.6	60.4	75.7	80.7
			Av Min	63.6	63.1	56.3	46.9	40.2	31.9	28.6	41.0	37.0	38.8	51.2	55.3
			Avg	80.0	80.0	74.6	63.5	54.9	47.8	43.7	52.8	48.8	49.6	63.4	68.0
C6 4463		Keene	Max	94	96	94	91	85	77	66	87	76	69	87	93
			Min	45	42	42	38	22	23	19	30	27	27	32	40
			Av Max	90.8M	89.3	83.8	70.8	63.0	64.3	57.0	65.5	61.0	59.3	73.1	79.8
			Av Min	55.0M	54.5	53.4	45.5	37.9	37.2	31.1	42.1	34.2	37.0	46.5	49.7
			Avg	72.9M	71.9	68.6	58.2	55.5	50.8	44.1	53.8	47.6	48.1	59.8	64.7
C5 4513		Kern Canyon	Max	99	98	98	91	76	73	71	78	73	76	92	98
			Min	60	60	51	46	M	24	22	41	34	34	43	53
			Av Max	95.4	-	89.7	74.4M	M	60.6M	M	65.1M	63.4M	64.2M	76.6M	81.8M
			Av Min	67.6	-	64.8	53.8M	M	39.1M	M	47.5M	42.0M	45.2M	55.3M	61.5M
			Avg	81.5	-	77.2	64.1M	M	49.9M	M	56.2M	53.0M	54.7M	65.9M	72.6M
C6 4535		Kettleman Hills	Max	101	101	98	89	81	72	64	78	74	76	93	102
			Min	60	56	54	49	39	33	24	44	37	38	48	52
			Av Max	95.5	93.3	88.1	73.4	65.2	58.0	51.7	63.2	62.7	63.8	78.1	85.1
			Av Min	70.4	68.6	65.7	56.5	50.7	45.3	37.9	50.6	55.5	46.0	56.6	62.4
			Avg	83.0	81.0	76.9	65.0	58.0	51.6	44.8	56.9	54.1	54.9	67.3	73.7
80 4999-03		Livingston S W	Max	106	110	104	97	83	70	66	77	77	80	95	107
			Min	49	47	45	39	29	25	19	38	30	34	37	45
			Av Max	100.0	98.7	93.3	79.6	69.0M	54.3M	46.3M	66.7M	68.8M	66.4	81.8M	91.0M
			Av Min	55.7	54.3	48.4	46.4	37.5M	36.1M	27.9M	45.6M	38.3M	42.4	49.6M	52.3M
			Avg	77.8	76.5	70.9	63.0	54.2M	46.2M	41.1M	56.2M	53.4M	54.4	65.7M	71.6M
80 5117		Los Banos Field Sta	Max	103	102	98	91	80	68	67	71	72	76	94	103
			Min	53	51	48	41	28	20	20	38	30	32	44	51
			Av Max	96.1	94.0	89.0	77.0	68.0	57.0	54.0	66.0	63.0	65.0	78.0	86.0
			Av Min	58.1	57.0	52.0	47.0	41.0	32.0	28.0	46.0	39.0	43.0	51.0	56.0
			Avg	77.1	75.5	70.5	62.0	54.5	44.5	41.0	56.0	51.0	54.0	64.5	71.0
B6 5202		Lushmeadows Rch	Max	92	M	88	M	M	M	66	76	72	79	M	M
			Min	56	M	54	M	M	M	23	37	27	29	M	M
			Av Max	85.5	M	M	M	M	M	54.2	62.6M	58.9M	56.6M	M	M
			Av Min	64.7	M	M	M	M	M	32.5	41.3M	35.5M	36.8M	M	M
			Avg	75.1	M	M	M	M	M	43.6	52.0M	47.2M	46.8M	M	M
C0 5257		Magunden	Max	107	106	102	93	85	78	68	78	83	81	97	106
			Min	46	60	46	44	31	19	18	41	37	38	44	52
			Av Max	101.9	98.6	92.8	78.8	66.1	62.1	58.0	69.4	68.1	69.6	83.7	89.6
			Av Min	63.9	65.3	59.9	51.8	41.3	39.2	30.7	46.7	40.5	44.8	51.3	54.4
			Avg	82.9	82.0	76.4	65.3	53.7	48.8	43.9	59.0	56.0	58.2	70.4	75.3
85 5348		Mariposa Circle 9 Rch	Max	104	104	93	84	80	70	64	73	65	74	93	100
			Min	48	44	42	33	23	19	16	30	18	21	30	34
			Av Max	98.4	94.0	86.8	71.3	54.8M	58.4	53.7	64.8	63.0	64.4	78.8M	81.3
			Av Min	55.0	54.0	50.2	42.4	33.5M	32.3	27.5	37.2M	28.9	33.1	45.1M	45.5
			Avg	76.7	74.0	68.5	56.8	45.9M	45.4	40.6	48.6M	41.7	43.2	58.0M	63.4
85 5352		Mariposa RS	Max	99	101	97	91	85	76	70	80	72	71	89	96
			Min	53	49	47	31	22	19	33	26	25	26	41	44
			Av Max	93.9	93.0	89.1	76.5	68.1	63.4	56.6	66.4M	61.6M	59.4	74.0M	81.4
			Av Min	58.4	56.6	53.3	45.5	38.7	34.4	27.1	40.1M	33.9M	36.5	49.0M	51.8
			Avg	76.2	74.8	71.2	61.0	53.4	48.9	41.8	53.2M	47.8M	48.0	65.1M	66.6
87 5496		Meadow Lakes	Max					RB	73	64	75	62	66	84	86
			Min					RB	25	19	34	24	24	44	44
			Av Max					RB	58.8	51.7	58.6	52.0	47.7	64.4	73.0
			Av Min					RB	51.6	34.8	42.4	34.2	33.6	50.4	52.6
			Avg					RB	40.2	43.2	50.0	43.1	40.6	57.4	62.8
87		Minarets	Max	90	94	90	86								84M
			Min	49	40	35	30								34M
			Av Max	84.3	85.7	81.2	71.4								71.6M
			Av Min	51.9	47.7	44.8	40.7								43.9M
			Avg	68.1	66.7	63.0	56.1								57.7M
90 5740		Modesto KTRR	Max	104	99	95	82	67	63	73	77	78	95	101	
			Min	50	51	50	43	31	25	30	37	31	34	38	49
			Av Max	95.7	91.4	87.2	74.7	68.4	53.8	52.4	67.7	66.6	67.9	79.0	86.8
			Av Min	56.0	57.1	53.3	40.4	41.3	39.2	30.7	46.7	40.5	44.8	51.3	54.4
			Avg	75.8	74.2	70.2	62.0	54.9	46.5	41.6	57.2	53.6	56.4	65.2	70.6
21 5893		Mountain Rest PFS	Max	93	94	M	85	M	M	74	63	60	84	89	
			Min	46	37	M	21	M	M	33	23	24	38	38	
			Av Max	86.9	87.8	M	70.2	M	M	53.5M	60.1M	53.0M	50.7M	66.4M	75.0M
			Av Min	55.7	50.9	M	38.0	M	M	35.1M	42.3M	33.4M	33.4M	47.3M	50.0M
			Avg	71.3	69.4	M	54.6	M	M	44.3M	51.2M	43.0M	42.0M	55.5M	61.4M
20 6230-50		North Belridge	Max	105	105	104	94	83	74	70	79	80	80	95	103
			Min	63	62	57	46	31	20	18	43	35	38	49	54
			Av Max	100.2	97.8	92.0	78.7	68.3	59.3	55.9	67.1	67.2	67.7M	80.8	87.0
			Av Min	69.4	67.7	62.3	53.1	44.6	38.2	31.7	47.7	42.8	46.2M	57.8	62.6
			Avg	84.8	82.8	77.2	65.9	56.4	48.8	43.8	57.4	55.0	57.0M	69.3	74.8
36		Oakhurst	Max	97	99	97	89	82	77	66	82	70	74	88	94
			Min	43	35	36	30	20	13	9	24	18	21	26	30
			Av Max	91.5	90.7	88.2	74.3	66.6	62.0	55.4	64.5	58.3	58.4	71.5	77.1
			Av Min	48.2	46.1	42.6	36.8	29.4	26.1	18.8	34.2	28.2	33.0	43.1	41.2
			Avg	69.8	68.4	64.4	55.6	48.0	44.0	37.1	49.3	43.2	45.7	57.3	59.1
13 6893		Pinecrest Strawberry	Max	86	88	84	80	82	68	68	-	60	64	80	84
			Min	42	38	38	28	24	12	8	22	12	24	32	42
			Av Max	81.2	80.3	76.5	68.3	59.9	54.6	53.5	56.4	4			

TABLE A-3
MONTHLY TEMPERATURES (Continued)

Designation or Order Number	Alpha Order Number	Station Name		1961											
				July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
B7		Placer GS	Max Min Av Max Av Min Avg	94 44 89.9 48.6 69.2	100 38 90.7 46.9 68.0	96 36 88.5 43.9 66.2	88 30 76.1 36.7 56.4			Closed for winter season					
B6	143	Raymond 9 N	Max Min Av Max Av Min Avg	104 54 97.3 57.5 78.4	104 49 96.1 54.4 76.8	99 48 91.1 54.4 72.6	88 39 76.2 46.8 61.5	84 25 68.7 33.0 57.3	76 21 61.6 27.3 47.3	66 19 56.4 27.3 41.8	79 38 67.4 42.0 54.7	73 40 62.4 34.1 48.2	75 27 63.1 45.4 51.1	90 36 76.4 49.9 67.2	100 40 86.4M 57.1 72.2M
CO 1268		Rector	Max Min Av Max Av Min Avg	103 50 97.7 60.0 79.1	102 50 95.9 59.5 77.6	100 49 91.7 61.7 73.1	92 41 78.5 47.5 63.0	82 28 69.4 38.7 54.4	75 20 59.9 33.7 46.8	66 18 56.4 28.1 42.2	78 38 67.0 43.9 56.7	78 31 66.0 39.9 53.1	80 36 67.2 42.2 56.4	96 44 82.4 55.9 69.4	104 47 87.8 57.1 72.4
CO 7360		Riverdale	Max Min Av Max Av Min Avg	104 55 98.9 60.0 79.4	105 53 96.2 53.6 77.8	100 45 92.2 51.6 72.9	90 42 78.4 47.5 63.0	86 27 70.6 40.7 54.7	75 19 59.1 33.7 46.4	68 15 56.7 30.4 42.4	75 33 67.0 48.1 55.4	79 33 67.6 42.2 53.7	80 34 68.1 46.5 53.7	96 41 81.2 54.6 66.7	105 46 89.1 57.0 72.5
CO 7800-02		Sanger 1 NE	Max Min Av Max Av Min Avg	103 57 98.6 59.6 79.1	105 52 96.6 58.4 77.5	101 49 92.4 54.9 73.6	91 43 76.0 49.9 62.8	81 29 66.8 40.7 54.3	73 24 59.2 34.5 48.1	65 20 56.2 30.4 43.3	77 35 66.6 41.6 57.4	78 35 66.6 42.2 54.4	80 36 66.6 45.8 55.2	97 44 81.3 57.9 67.9	102 48 88.2 57.0 72.6
CO 8375-50		South Belridge	Max Min Av Max Av Min Avg	105 61 99.7 66.1 82.9	105 58 97.5 64.0 80.8	103 52 92.1 58.5 75.3	92 43 78.7 49.9 63.8	84 28 68.7 45.4 54.7	74 16 59.4 37.0 47.0	71 10 56.5 37.0 42.1	80 31 67.2 43.6 53.5	78 27 66.6 39.6 53.5	78 21 66.6 43.5 53.5	96 41 81.6 54.2 67.9	104 50 85.9 55.8 70.8
C7 8407-11		South Lake Farms Ndq	Max Min Av Max Av Min Avg	104 55 99.1 60.5 79.8	105 49 98.4 59.3 78.0	101 48 91.1 55.1 73.1	92 40 77.7 47.7 62.7	83 24 68.7 38.1 53.6	72 13 59.4 32.6 45.8	67 10 56.7 25.5 40.7	73 31 67.9 46.2 56.0	79 29 68.2 42.0 52.0	78 27 66.6 40.1 51.1	98 47 81.6 54.2 66.8	104 50 87.8 56.3 72.0
B3 8450		Spring Gap Forebay	Max Min Av Max Av Min Avg	88 42 80.0 40.0 66.0	90 40 83.1 48.9 66.0	86 40 M M M	72 28 65.4M 38.7M 52.0M	68 20 M M M	58 12 M M M	68 9 M M M	60 12 M M M	64 16 M M M	78 24 M M M	82 32 M M M	96 42 M M M
B3 8499		Stanislaus Power House	Max Min Av Max Av Min Avg	102 52 97.7 58.5 78.1	105 47 96.3 56.1 76.2	100 45 92.9 52.6 73.8	95 35 77.8 45.1 61.4	86 25 60.7 38.3 53.0	74 20 60.7 33.8 47.2	65 10 66.4M 39.7M 53.0M	78 22 61.9 32.4 47.1	78 20 61.9 32.4 47.1	78 20 61.9 32.4 47.1	92 42 75.0M 46.7M 60.2M	96 42 82.2 50.3 66.2
C3 8620		Success Dam	Max Min Av Max Av Min Avg	103 59 97.8 64.2 81.0	103 56 95.7 63.6 79.6	100 52 92.4 60.6 76.0	94 45 78.3 46.9 65.7	84 33 69.3 45.6 57.5	74 23 62.3 30.2 50.1	67 23 57.5 25.4 41.7	73 23 67.2 43.4 57.7	79 36 65.8 42.4 54.6	78 31 66.6 43.6 55.7	92 42 81.3 50.3 67.9	104 47 86.8 58.6 72.7
C7 8755		Taft HTR Radio	Max Min Av Max Av Min Avg	102 54 97.6 64.9 81.2	103 55 98.8 61.9 78.8	100 51 95.6 59.4 74.0	92 40 78.7 48.6 62.4	83 28 62.1M 42.1M 54.9M	72 20 50.2 30.2 47.1	70 17 61.7 34.2 42.8	81 32 65.8 42.4 56.6	79 41 65.8 43.4 53.8	78 32 65.8 43.4 53.8	94 47 81.6 55.0 67.3	102 52 85.9M 59.9M 72.9M
C2 8868		Terminus Dam	Max Min Av Max Av Min Avg	104 58 97.8 68.7 83.2	102 58 95.9 66.6 81.2	99 54 90.8 63.3 77.0	92 35 76.1 53.5 65.0	82 27 65.4 39.9 57.4	75 24 55.4 32.5 50.2	66 17 65.7 45.9 44.0	77 34 65.8 49.1 57.5	77 32 66.6 43.4 53.8	76 36 65.8 43.4 53.8	94 46 81.6 55.9 67.7	102 48 85.0 59.3 72.6
CO 9006		Tranquillity Gltz	Max Min Av Max Av Min Avg	104 60 99.2 67.2 83.2	104 58 96.7 65.4 81.0	100 54 91.2 61.1 76.2	89 39 78.8 52.8 65.8	M M 69.8M 43.0M 56.4M	M M 62.8M 38.3M 50.6M	M M 58.4M 30.8M 44.6M	M M 66.8M 40.8M 53.8M	M M 63.6M 42.0M 52.8M	M M 65.8M 42.0M 53.8M	M M 84.1M 57.1M 71.2M	100 47 89.1M 61.1M 76.1M
C1 9025		Trimmer RS	Max Min Av Max Av Min Avg	102 58 93.6 61.7 77.6	104 57 95.7 62.7 79.2	100 51 90.0 57.9 74.4	89 39 75.5 47.5 61.5	M M M M M	M M M M M	M M M M M	M M M M M	M M M M M	M M M M M	M M M M M	102 47 85.4 56.0 70.7
CO 9051		Tulare	Max Min Av Max Av Min Avg	107 60 102.6 63.5 83.1	107 56 100.3 61.5 80.9	103 51 95.7 58.1 76.9	95 43 82.1 51.0 66.6	89 30 72.5 46.1 57.5	74 22 61.1 36.5 48.8	70 18 59.3 30.1 44.7	81 34 68.8 42.0 55.9	80 34 69.0 46.8 55.9	84 38 71.0 49.8 58.6	100 51 85.4 56.4 70.9	108 51 91.4 59.6 75.5
C. 9145		US Cotton Field Sta	Max Min Av Max Av Min Avg	103 60 98.5 65.3 81.9	102 58 95.2 62.8 79.0	99 52 90.4 58.4 74.4	92 41 78.4 49.6 64.0	83 31 68.3 41.6 55.0	74 22 59.0 35.4 47.2	69 17 55.9 32.5 44.0	79 34 66.6 49.1 57.5	80 32 67.8 43.4 53.8	81 37 68.1 45.4 55.8	95 43 81.6 57.9 69.1	104 51 87.7 59.3 73.5
C7 9304		Vestal	Max Min Av Max Av Min Avg	104 60 99.2 67.2 83.2	104 58 96.7 65.4 81.0	100 54 91.2 61.1 76.2	92 39 78.8 52.8 65.8	83 27 69.8M 43.0M 56.4M	75 18 62.8M 38.3M 50.6M	69 15 58.4M 30.8M 44.6M	79 34 66.8M 40.8M 53.8M	79 36 63.6M 42.0M 52.8M	80 37 65.8M 42.0M 53.8M	98 43 84.1M 57.1M 71.2M	104 52 89.1M 61.1M 76.1M
BO 9565		Westley	Max Min Av Max Av Min Avg	101 50 96.6 55.0 75.8	100 49 93.2 55.0 74.0	97 47 M M M	92 41 77.7 46.8 63.2	81 28 M M M	68 20 52.9M 31.1M 41.1M	62 15 52.9M 31.1M 41.1M	72 36 65.6M 42.0M 53.8M	72 32 65.0M 42.0M 53.8M	77 37 65.0M 42.0M 53.8M	94 49 85.6M 57.9M 69.5M	100 48 85.6M 57.9M 69.5M
C1 9749		Wishon Res	Max Min Av Max Av Min Avg	83 33 99.2 67.2 83.2	87 31 96.7 65.4 81.0	82 26 91.2 61.1 76.2	75 16 78.8 52.8 65.8	64 13 69.8M 43.0M 56.4M	57 12 62.8M 38.3M 50.6M	62 12 58.4M 30.8M 44.6M	79 34 66.8M 40.8M 53.8M	79 36 63.6M 42.0M 52.8M	80 37 65.8M 42.0M 53.8M	98 43 84.1M 57.1M 71.2M	104 52 89.1M 61.1M 76.1M
C4 9805		Woody	Max Min Av Max Av Min Avg	100 53 95.8 59.7 77.8	101 51 93.9 59.3 76.6	97 47 92.4 54.7 71.6	92 38 88.6 45.5 60.0	82 22 74.5 36.3 52.2	74 17 66.0 38.9 49.7	65 17 56.7 31.4 44.1	79 37 62.5 44.4 54.4	74 30 62.5 44.4 54.4	72 29 62.5 44.4 54.4	93 46 84.4M 57.9M 69.5M	101 48 84.4M 57.9M 69.5M

TABLE A-4
MONTHLY SUMMARY OF EVAPORATION STATION DATA

Division Name	Alpha Order Number	Station Name													
				July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
C0 2013		Corcoran El Rio. 1	Evap	14.7	12.2	8.9	5.98	3.6	1.31	1.24E	1.2E	4.17E	3.97E	8.36	10.69E
			Precip	.00	.00	.00	.06	.05	.09	.36	2.24	1.04	2.22	.21	.31
			Wind	190	186	1520	1640E	1265	1210	1308E	1462E	2045E	1780E	1840	1895E
			Av Max	96.4	93.6	88.8	76.0	70.2	60.6M	55.1	67.6	66.6	68.5	81.7	88.7
			Av Min	56.2	55.6	52.0	45.3	38.9	35.1M	28.7	46.6	39.5	43.2	51.3	54.6
C6 2222		Cummings Valley	Evap	12.4	11.25	8.66	5.60	3.40	2.92	4.62E	4.15	4.64	5.50	6.69	8.91
			Precip	.00	.00	.00	.33	.01	.00	.00	2.71	1.87	2.30	.40	.72
			Wind	2091	1986	1732	1580	1819	1256	274	2198	2900	2600	1950	1880
			Av Max	87.2	88.0	85.4	74.3	66.0	61.5	57.4	63.6	56.4	56.0	70.0	72.9
			Av Min	45.9	44.8	40.3	33.3	27.3	29.3	23.5	31.9	30.2	31.0	46.0	43.9
B4 2473		Don Pedro Reservoir	Evap	15.10	13.13	9.82	6.20	2.81	2.46	1.72E	2.16E	4.44	4.09	6.91	10.79
			Precip	.16	.00	.05	1.68	.49	3.37	3.97	3.17	3.34	4.22	.94	.13
			Wind	97.5	95.3	90.6	77.7	69.3	59.2	54.5	66.5	62.6	63.6	77.1	86.9
			Av Max	63.7	61.7	57.3	50.2	42.5	38.1	30.2	42.9	37.7	41.8	49.7	53.1
			Av Min	63.7	61.7	57.3	50.2	42.5	38.1	30.2	42.9	37.7	41.8	49.7	53.1
C5 4303		Isabella Dam	Evap	13.29	12.63	9.41	5.66	3.09	2.68	2.82	2.58	4.55	4.25	8.23	10.50
			Precip	.00	.00	.00	.03	.00	.03	1.52	3.06	2.06	1.07	.13	.72
			Wind	1860	1881	1658	1592	1405	1439	1885	2075	2753	2713	2751	2413
			Av Max	96.3	96.9	92.8	80.0	68.8	63.6	58.8	64.5	60.6	60.4	75.7	80.7
			Av Min	63.6	63.1	56.3	46.9	40.2	31.9	28.6	41.0	37.0	38.8	51.2	55.3
B0 5117		Los Banos Field Sta	Evap	16.94	13.11	9.17	6.07	2.79	.85	1.25	2.14	4.33	5.58	10.25	13.62
			Precip	.00	.00	.00	.14	.12	1.67	2.33	2.42	1.28	1.69	0.22	.00
			Wind	3840	3398	2819	2252	1236	526	1235	1478	2784	2168	3447	5144
			Av Max	98.1	94.0	89.0	77.0	68.0	57.0	54.0	66.0	63.0	65.0	80.0	86.0
			Av Min	58.1	57.0	52.0	47.0	41.0	32.0	28.0	46.0	39.0	43.0	51.0	56.0
C1 6895		Pine Flat Dam	Evap	12.24	11.22	8.59	4.35	2.32	1.57	1.41	1.82	3.52	3.38	5.91	9.48
			Precip	.01	T	.06	1.32	.05	.19	4.06	4.57	3.48	4.53	.47	.08
			Wind	852	974	903	873	703	768	913	760	1020	809	511	831
			Av Max	100.2	98.6	93.5	78.2	69.4	62.0	56.7	67.0	64.6	64.9	79.6	88.6
			Av Min	61.8	59.8	56.9	48.9	40.6	34.6	27.6	45.8	40.7	43.8	52.5	56.1
B6 7273		Raymond 9N	Evap	12.00	10.92	8.85	5.67	3.60	2.19	1.20	2.78	3.67	2.96	4.77	8.51
			Precip	.20	.00	.05	1.95	.17	2.02	6.26	3.89	5.15	6.06	.81	.11
			Wind	811	781	660	809	347	321	445	433	378	175	254	507
			Av Max	97.3	96.1	91.1	76.2	68.7	61.6	56.4	67.4	62.4	63.1	76.4	86.4
			Av Min	59.5	57.5	54.4	46.8	37.6	33.0	27.3	42.0	34.1	39.5	49.9	48.0
C3 8620		Success Dam	Evap	14.75	13.35	10.32	6.23	3.59	2.32	2.31	2.22	4.54	4.84	8.71	11.48
			Precip	.11	.00	.07	.29	.00	.81	2.83	2.33	2.92	.23	.39	.39
			Wind	1511	1644	1409	1544	1456	1487	1682	1210	1577	1026E	1600E	1731
			Av Max	97.8	95.7	91.4	78.3	69.3	62.3	57.5	67.2	65.8	65.7	81.3	86.8
			Av Min	64.2	63.6	60.6	53.1	45.6	37.9	31.9	48.2	43.4	45.8	54.6	58.6
C7 8755		Taft KTKR	Evap	16.02	14.04	10.17	5.83	3.58	2.40	2.52	3.23	5.79	6.25	10.14	13.16
			Precip	T	.00	T	.10	.00	T	.01	.86	.99	.83	1.14	.65
			Wind	1110	800	630	630	540	440	670	700	1420	1720	1380	1600
			Av Max	97.6	95.8	89.6	76.2	67.6M	60.0	55.3	66.5	65.2	63.2M	79.6	85.9M
			Av Min	64.9	61.9	58.4	48.6	42.1M	34.2	30.2	46.6	42.4	43.1M	55.0	59.9M
C2 8868		Terminus Dam	Evap	T	RB	9.08M	6.39	3.92	2.81	2.82	2.53	4.72	4.52	7.66	11.52
			Precip	T	RB	1726M	2103	1950	2168	2398	1654	2100	1696	1032	1465
			Wind	97.8	95.9	90.8	76.5	68.1	60.5	55.4	65.9	64.3	63.9	79.5	86.0
			Av Max	68.7	66.6	63.3	53.5	46.7	39.9	32.5	49.1	43.4	45.6	55.9	59.3
			Av Min	68.7	66.6	63.3	53.5	46.7	39.9	32.5	49.1	43.4	45.6	55.9	59.3
C0 9145		U. S. Cotton Field Sta.	Evap	13.87E	11.47	8.74E	5.23E	2.4	1.18E	2.03E	2.21E	5.57	6.07E	10.62E	11.90
			Precip	.00	.00	.05	.04	.00	.02	.17	2.14	1.49	1.50	.56	.63
			Wind	1263	1066	934	1074	886	904	1181	1211	232E	2709	3081	2089
			Av Max	98.5	95.2	90.4	78.4	68.3	59.0	55.9	66.6	67.8	68.3	81.6	87.7
			Av Min	65.3	62.8	58.4	49.6	41.6	35.4	29.4	46.1	42.2	46.1	54.7	59.3
B0 9565		Westley	Evap	9.50	6.93	5.28E	3.35E	1.86	.86E	.92E	1.86	3.62E	3.49E	6.57	8.97E
			Precip	.00	.00	.00	.50	.33	1.81	2.09	2.90	1.87	1.96	.09	.20
			Wind	96.6	93.2	M	77.7	M	M	52.9M	68.1M	65.6M	65.0M	77.9M	85.6M
			Av Max	55.0	54.8	M	48.7	M	M	29.2M	46.9M	40.0M	41.3M	48.8M	53.5M
			Av Min	55.0	54.8	M	48.7	M	M	29.2M	46.9M	40.0M	41.3M	48.8M	53.5M



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SURFACE WATER FLOW

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INTRODUCTION

This appendix presents surface water data for the Water Year 1963 which is from October 1, 1962, to September 30, 1963. The data presented in this appendix consists of daily mean discharge, station locations, daily mean gage heights, and diversion quantities.

Stream gaging station descriptions presented show the historic maximum discharge of record and the maximum discharge for the report year. Locations of the gaging stations and other important data on the length of record and datum of gage are also presented.

Quantities of daily mean discharge for most stations shown are computed by an electronic computer. The gage height data are fed into the computer simultaneously with rating and shift correction data. Daily mean discharge, total monthly acre-feet, and instantaneous maximum and minimum discharge are computed. The gage height data are extracted from the standard recorder chart by a semiautomatic chart-reading machine and put into machine language. The record for those stations affected by backwater conditions is not adaptable to computation by machine methods and is computed manually by standard methods.

Daily mean stage tables are presented for key stations on the major streams in the San Joaquin Valley. These daily mean stages are computed by the electronic computer, as mentioned above. The gage heights are computed to the nearest one-hundredth of a foot, and the major crests for the year are shown.

Quantities of water diverted for use are shown as monthly total acre-feet and total acre-feet diverted for a certain reach of a stream.

Definition of Terms

A list of definition of terms as used herein follows:

Second-foot or cubic foot per second is the unit rate of discharge of water. It is a cubic foot of water passing a given point in one second.

Acre-foot is the quantity of water required to cover one acre to a depth of one foot. It is equivalent to 43,560 cubic feet or 325,850 gallons.

Drainage area of a stream above a specific location is that area, measured in a horizontal plane, which is enclosed by a drainage divide.

Unimpaired runoff is the flow that would occur naturally at a point in a stream if there were: (1) no upstream controls such as dams and reservoirs; (2) no artificial diversions or accretions; and (3) no changes in ground water storage resulting from development. Unimpaired flow is computed from measured runoff by allowing for man-made changes in natural conditions.

Water Year is the 12-month period from October 1 of any year through September 30 of the subsequent year and is designated by the calendar year in which it ends.

Surface Water Gaging Station Designation

The index number for each gaging station is composed of a number which begins with an alphabetical letter designating the hydrographic area, followed by the first digit which indicates the main river basin. The second digit refers to a tributary of the main river basin. The hydrographic area and the river basin are outlined on Plate B-1. The remaining three digits are used to number stations in an upstream direction with the lowest number at or near the mouth. The digit 9, which is the third from the left, indicates that the station is a surface gravity diversion station. Each station is listed by name as well as by machine index number.

EXPLANATION OF TABULAR DATA

The tabular data presented in this appendix are divided into the general categories of daily mean discharge, daily mean stage, and monthly diversions.

The area to which these data pertain is shown as Area 4 on page iii and on Plate B-1.

Table B-1 presents gaging station additions and discontinuations; it also presents revisions to previously published reports.

Lakes and Reservoirs

Three types of data are presented for lakes and reservoirs. Table B-2 presents inflow to Millerton Lake. Table B-3 presents the daily content of Millerton Lake in thousands of acre-feet. Table B-59 presents daily mean gage height of Tulare Lake.

Daily Mean Discharge

Presented in Tables B-4 through B-58 are records of daily mean discharge, gaging station location, period of record, maximum flow of record, maximum and minimum flow for the season, as well as the total flow in acre-feet for the 1962-63 water year.

The streamflow tables are arranged, for each stream or stream system, in downstream order. Stations on a tributary entering between two main stem stations are listed between those stations, and in downstream order on that tributary. A stream gaging station is named from the stream and the nearest post office (Merced River at Cressy) or well-known landmark (San Joaquin River at Fremont Ford Bridge).

Each stream gaging station has a stage-discharge relationship or rating developed. The rating gives the flow in second-feet for each gage height at the station. When flows at a single station occur in excess of 140 percent of the highest measurement on the rating, the computed daily mean discharges from the electronic computer are shown as estimated. Normally, the rating is fairly permanent where there is a fixed channel and a fixed flow regimen at the station. The rating varies, however, where the bed at the channel is of loose shifting sand, or where aquatic growth builds up in the channel changing the flow regimen.

Where the rating is not permanent and varies periodically, more frequent measurements of discharge are necessary to accurately determine the daily mean discharge.

All streamflow data reported herein are derived through the use of mechanical, arithmetical, and empirical operations and methods. Since the results are affected by inherent inaccuracies in the procedures and equipment used, it becomes necessary to establish limits of accuracy for which the data are reported. The following is a listing of significant figures used in reporting streamflow data:

1. Daily flows - second-feet

0.0	- 9.9	Tenths
10	- 99	2 significant figures
100	- up	3 significant figures

2. Means - second-feet

0.0	- 99.9	Tenths
100	- 999	3 significant figures
1000	- above	4 significant figures

The water year totals are reported to a maximum of four significant figures.

Daily Mean Gage Heights

Presented in Table B-59 through B-85 are records of daily mean gage heights for key stations on major streams in the San Joaquin Valley for the 1962-63 water year.

At the bottom of the stage tables are shown the major river crests occurring for the 1962-63 water year. The table also shows the location of the station, maximum gage height of record, period of record, and datum of gage. The elevation of water surface at the gaging station is obtained by adding the gage

height reading to the elevation of the gage datum presented in each table. Gage height for stage tables are computed from recorder charts and are reported to one-hundredth of a foot.

Of the 26 stations for which daily mean gage heights are presented in this report, 13 have computed daily mean discharge. These data are included in the streamflow tables.

Diversions

Presented in Tables B-86 through B-95 are the amounts of water diverted for irrigation during the period October 1, 1962 through September 30, 1963. The amounts of water diverted by pumping were determined by rating the capacity of each diversion pumping plant and collecting data on hours of operation. The amounts of water diverted by gravity (indicated by "Gravity" in column headed "Number and Size of Pump") were determined either by calibrating suitable measuring devices or by rating canals in a manner similar to that used to rate streamflow stations.

Because of the intermittent operation of most diversion facilities, the monthly diversion values are reported in acre-feet to three significant figures. The totals for individual water users and stream reaches are reported to four significant figures.

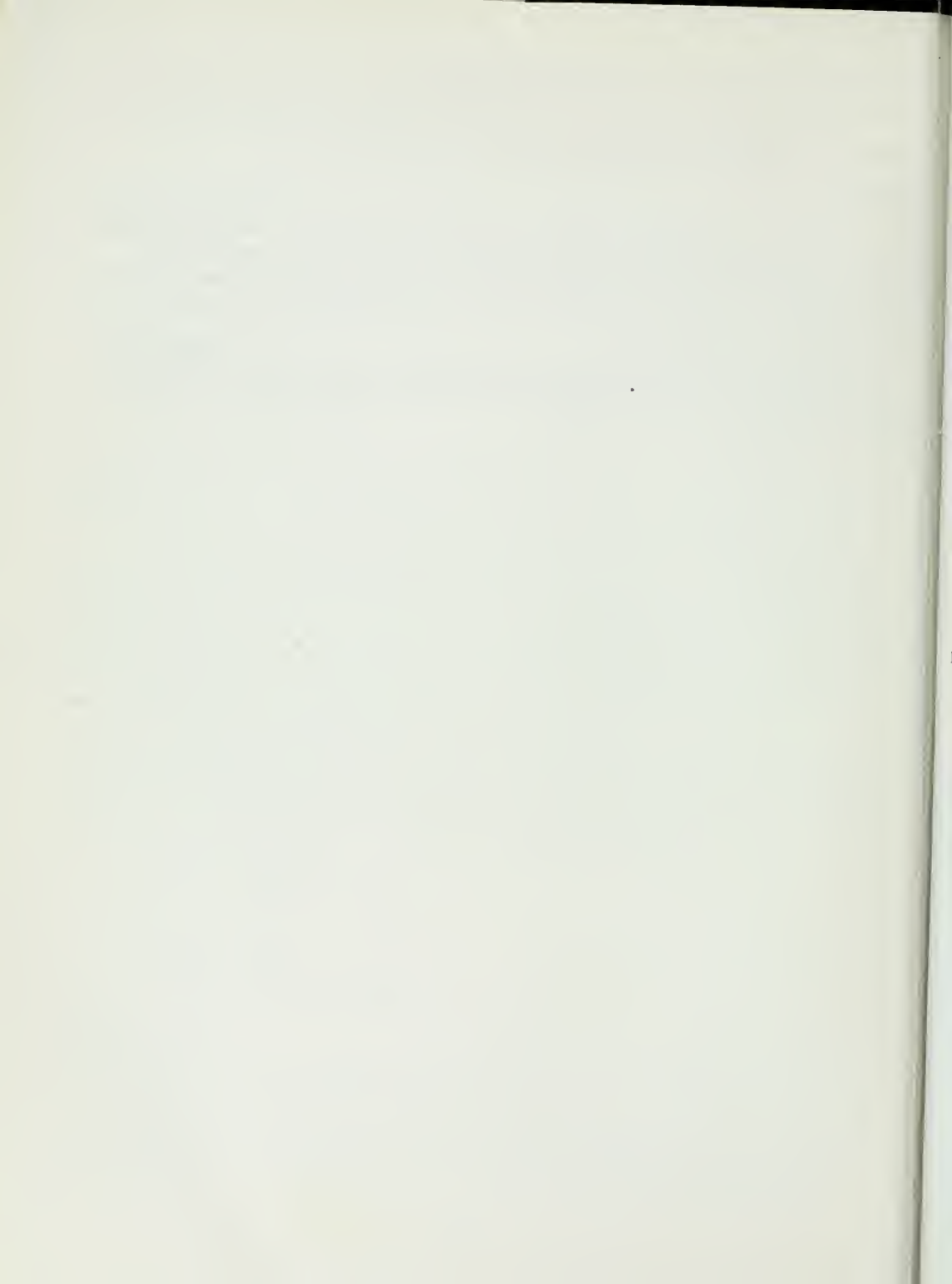


TABLE B-1

GAGING STATION ADDITIONS AND DISCONTINUATIONS AND REVISIONS TO PREVIOUSLY PUBLISHED REPORTS

*ADDITIONAL STATIONS

Delta Mendota Canal to Mendota Pool
San Joaquin River below Friant
Hubbs-Miner Ditch at Porterville
Rhodes-Fine Ditch near Porterville
Woods-Central Ditch near Porterville
Poplar Ditch near Porterville
Vandalia Ditch near Porterville
Campbell-Moreland Ditch above Porterville
Porter Slough Ditch at Porterville

DISCONTINUED STATIONS

None

PUBLICATION DISCONTINUED

Deer Creek near Terra Bella Irrigation District
San Joaquin River at Whitehouse

REVISED DATA

		Maximum Discharge During Year	Maximum Discharge Of Record
Mariposa Creek near Cathay	1958		7180
	1959	2114	7180
	1960	1044	7180
	1961		7180
	1962	4620	7180
Maxwell Creek at Coulterville	1959		740
	1960	1720	1720
	1961		1720
	1962	1550	1720

*Installed prior to 1963.
Records not published in previous reports.

TABLE B-2

DAILY MEAN DISCHARGE
INFLOW TO MILLETON LAKE
IN SECOND FEET

STATION NO	WATER YEAR
871121	1963

DAY	OCT	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	1760	1270	648	557	13416	2054	3628	3963	6332	4099	2570	2651	1
2	1285	1527	731	874	4193	1492	3004	3966	6875	4263	2586	2554	2
3	1358	947	639	606	3688	1626	2752	3901	7399	4460	2623	3077	3
4	1365	785	593	578	3555	1437	2955	3864	5883	4213	2605	2830	4
5	1301	1061	578	577	3575	1627	3446	3893	5631	4052	2587	2875	5
6	1024	1566	519	340	3521	1632	3376	3809	5278	4427	2614	2827	6
7	1148	1611	477	330	3430	1631	3909	3948	4891	4607	2637	2445	7
8	1191	1453	566	388	3303	1395	3733	3914	4839	5017	2637	2367	8
9	1534	1453	538	435	3643	1430	3582	4630	5142	5332	2634	2674	9
10	1204	649	651	604	4419	1520	3522	3986	5145	5057	2683	2898	10
11	1178	298	644	577	3777	1364	3481	4046	4667	5008	2406	2797	11
12	1671	298	504	742	3507	1550	3513	3851	4420	5341	2667	2772	12
13	1246	688	587	637	3765	1624	3493	3827	4288	5447	2761	2844	13
14	1407	756	363	1166	3678	1669	4743	3885	4406	5294	2637	2469	14
15	913	787	593	507	3543	1582	4306	3737	5326	4969	2680	2515	15
16	1519	754	467	586	3524	1942	3841	3754	7352	4762	2812	2847	16
17	1227	502	686	994	3540	1871	4032	3793	7596	4693	2646	2848	17
18	1528	521	625	764	3528	1670	3818	3725	8209	4188	2523	3013	18
19	1534	1143	640	398	3496	1618	3772	3760	7543	3984	2635	3065	19
20	820	1341	542	82	3366	1769	4080	3713	7812	3564	2565	3019	20
21	760	1284	486	416	3469	1683	4435	3709	7265	3539	2793	2575	21
22	1421	887	599	473	3385	1769	4106	3641	6093	3617	2659	2540	22
23	1136	1008	532	317	3372	1828	4056	3785	5140	3482	2750	2946	23
24	1163	898	750	698	3399	1987	3882	3803	4680	3438	2728	2824	24
25	1628	730	76	442	3365	1824	3912	3790	4096	3455	2569	2455	25
26	1549	1006	488	317	3321	1787	4312	3745	4465	3397	2813	2421	26
27	961	703	711	201	3385	1983	4049	4215	5123	2488	2752	2549	27
28	387 a	671	683	360	3318	3489	3958 b	6739	5160	2688	2689	1865	28
29	1030	678	699	649		3798	3880	6862	4386	2583	2766	1253	29
30	1082	697	419	2211		2717	3863	6426	3620	2506	2479	1609	30
31	1131		569	11121		2618		6783		2640	2510		31
MEAN	1241	932	568	934	3910	1871	3758	4241	5635	4084	2646	2614	MEAN
MAX	1760	1611	750	11121	13416	3798	4435	6862	8209	5447	2813	3077	MAX
MIN	387	298	76	82	3318	1364	2752	3641	3620	2506	2406	1253	MIN
ACFT	76318	55482	34915	57416	217152	115014	223287	260753	335330	251127	162676	155552	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day

- E end

a - 25 hr. day

b - 23 hr. day

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
2703											1945022

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M. O. B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 00 00	119 42 10	SW 5 11S 21E				OCT 41-DATE	OCT 41-DATE	1941		0.00 USCGS

Station located near center of Friant Dam on San Joaquin River, immediately above Cottonwood Creek, 0.9 mi. NE of Friant. Usable capacity, 503,000 ac.-ft. between elevations 375.4 and 578.0 ft. above mean sea level. Not available for release, 17,400 ac.-ft. Inflow to Friant Reservoir takes into account change in storage, release, spill, precipitation, and evaporation, and is representative of the natural flow which would pass the dam site if the dam had not been constructed. Figures shown under total discharge are computed inflow to the reservoir. Period of record for computed inflow is shown under period of record for discharge. Records furnished by U.S.B.R. Drainage area is 1,633 sq. mi.

TABLE B-3

DAILY CONTENT MILLERTON LAKE
(In thousands of acre-feet)

STATION NO	WATER YEAR
871100	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	147.1	161.9	189.3	219.6	295.5	424.5	456.9	493.9	500.0	502.0	433.7	257.7	1
2	147.0	163.3	190.5	221.2	301.4	425.4	461.4	494.1	504.0	499.1	428.6	251.8	2
3	146.9	163.6	191.6	222.3	306.4	426.4	465.4	495.8	508.7	496.6	424.2	247.0	3
4	146.9	163.5	192.7	223.3	311.2	426.8	469.7	497.8	509.8	493.9	419.6	241.7	4
5	147.0	164.0	193.6	224.4	317.6	427.4	475.1	499.9	510.0	492.0	414.4	237.2	5
6	146.8	165.4	194.5	224.9	323.5	427.7	480.3	502.7	509.7	491.6	410.0	234.2	6
7	146.7	167.1	195.3	225.4	329.2	427.9	486.6	505.5	509.1	491.6	405.8	231.9	7
8	146.5	168.4	196.3	226.1	334.8	427.5	492.6	508.4	509.1	492.6	400.5	229.6	8
9	147.0	169.7	197.2	226.8	341.1	427.2	498.0	512.1	509.8	494.1	395.1	227.7	9
10	146.8	169.4	198.4	227.8	348.6	426.7	502.0	512.9	511.0	495.1	390.3	226.5	10
11	146.7	168.4	199.5	228.9	354.6	424.9	505.9	513.9	511.3	496.2	384.8	225.1	11
12	147.6	167.4	200.3	230.2	359.7	423.9	507.7	514.3	511.4	498.3	378.8	223.7	12
13	147.9	167.3	201.3	231.3	365.2	422.9	507.7	514.0	511.7	500.3	372.8	221.9	13
14	148.5	167.3	201.9	233.5	370.6	421.9	508.8	513.3	512.5	501.3	366.5	218.9	14
15	148.3	168.0	202.9	234.4	375.8	422.2	511.3	512.0	515.0	501.2	360.4	216.0	15
16	149.4	168.7	203.7	235.4	380.8	423.3	512.8	510.3	520.5	499.4	354.5	213.8	16
17	150.0	169.2	204.9	237.2	385.7	424.1	512.1	507.8	524.1	497.4	348.2	211.7	17
18	151.4	169.7	206.0	238.6	389.9	424.4	510.4	505.0	527.0	494.5	341.7	210.3	18
19	153.0	171.4	207.2	239.3	393.5	424.8	508.4	502.1	527.5	491.5	335.5	209.5	19
20	153.3	173.6	208.1	239.3	396.9	425.6	507.1	499.0	528.1	487.9	329.1	209.6	20
21	153.3	175.8	208.9	240.0	400.3	426.2	506.5	495.8	527.6	484.2	323.2	209.5	21
22	154.6	177.2	210.0	240.8	403.4	427.1	505.3	492.2	525.7	480.0	317.0	209.3	22
23	155.2	178.9	210.9	241.2	406.4	428.3	503.9	488.9	523.2	475.5	311.0	209.9	23
24	156.0	180.4	212.3	242.5	409.3	429.7	502.2	485.7	520.9	471.0	304.9	210.5	24
25	157.7	181.7	212.3	243.2	411.9	430.7	500.7	482.7	517.6	466.9	298.6	210.7	25
26	159.3	183.4	213.2	243.7	414.5	431.7	500.0	479.7	515.0	463.5	292.9	210.6	26
27	159.8	184.6	214.5	243.9	418.0	433.2	498.7	477.6	513.6	459.1	287.1	210.7	27
28	159.1	185.8	215.7	244.5	422.4	438.0	497.3	480.6	512.3	454.7	281.2	209.4	28
29	159.6	186.9	216.9	245.6	443.9	496.0	485.0	485.0	509.6	449.7	275.4	206.9	29
30	160.2	188.2	217.7	249.4	447.7	494.8	489.3	505.3	505.3	444.4	269.0	205.0	30
31	160.9		218.7	270.8	451.3		495.5			439.1	263.4		31
Monthly Change +14.9		+27.3	+30.5	+52.1	+151.6	+28.9	+43.5	+0.7	+9.8	-66.2	-175.7	-58.4	

E - Estimated

NR - No Record

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M. O. & B. M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 00 00	119 42 10	SW 5 11S 21E				OCT 41-DATE	OCT 41-DATE	1941		0.00 USCGS

Station located near center of Friant Dam on San Joaquin River, immediately above Cottonwood Creek, 0.9 mi. NE of Friant. Usable capacity, 503,000 ac.-ft. between elevations 375.4 and 578.0 ft. above mean sea level. Not available for release, 17,400 ac.-ft. Records furnished by U.S.B.R. Drainage area is 1,633 sq. mi.

TABLE B-4

DAILY MEAN DISCHARGE

DELTA-MENDOTA CANAL NEAR TRACY
IN SECOND FEET

STATION NO.	WATER YEAR
R95925	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	1976	716	0.0	0.0	506	1158	1264	1261	3178	3953	4165	2740	1
2	1982	717	0.0	0.0	505	1064	1079	1476	2821	3925	4169	2735	2
3	1863	717	0.0	0.0	507	1064	1077	1796	2535	3926	4163	2735	3
4	1729	717	0.0	146	508	1057	1148	1962	2533	3770	4160	2567	4
5	1726	786	0.0	0.0	878	1660	1149	1961	2605	3770	4161	2433	5
6	1789	788	0.0	0.0	877	1870	971	1960	2713	3511	4030	2389	6
7	1826	716	0.0	0.0	942	1804	972	2131	3463	3510	3902	2228	7
8	1824	716	0.0	0.0	1177	1910	974	2133	3597	3509	3900	2229	8
9	1919	755	0.0	0.0	1040	1981	905	2427	3594	3507	3892	2228	9
10	1926	755	0.0	0.0	615	2268	942	2458	3600	3506	3793	1928	10
11	1888	754	0.0	0.0	615	2041	1157	2463	3593	3800	3796	1827	11
12	1676	681	0.0	0.0	613	2128	1159	2365	3593	4172	3795	1827	12
13	1575	681	0.0	0.0	649	2161	1158	2464	3420	4233	3700	1832	13
14	1579	681	0.0	0.0	503	2329	1160	2466	3278	4341	3699	1831	14
15	1171	680	0.0	70	466	2333	1012	2461	3442	4186	3826	1829	15
16	970	753	0.0	282	469	2267	1011	2524	3510	4063	3904	2068	16
17	868	752	0.0	0.0	467	1901	1268	2592	3518	4059	3910	1928	17
18	937	752	0.0	69	866	1896	1230	2812	3528	4163	3898	1928	18
19	936	713	0.0	320	932	1891	1232	2815	3655	4227	3769	1826	19
20	934	785	0.0	862	1132	1974	1339	2821	3844	4293	3743	1827	20
21	929	787	0.0	927	898	2002	1341	3462	3850	4351	3630	1830	21
22	928	787	0.0	1160	868	2038	1411	3657	3980	4288	3630	1830	22
23	929	717	0.0	1159	867	2022	1195	3726	3018	4159	3630	1828	23
24	1029	717	0.0	1160	867	1884	1197	3794	2362	4214	3560	1826	24
25	1030	715	0.0	1160	866	1846	1269	3730	3443	4368	3463	1827	25
26	1027	928	0.0	1159	866	1950	1381	3634	3602	4203	3201	1670	26
27	1092	865	176	1663	930	1951	1379	3564	4160	4378	3151	1670	27
28	1114a	864	0.0	1159	930	1294	1244b	3296	4150	4382	3158	1668	28
29	1025	865	0.0	1158	897	1264	1247	4143	4143	4381	2986	1671	29
30	861	538	0.0	1097	938	1260	1260	3244	4145	4355	2987	1669	30
31	716		0.0	541		1262		3249		4197	2882		31
MEAN	1348	747	6	455	763	1769	1172	2708	3429	4055	3698	2014	MEAN
MAX	1982	928	176	1663	1177	2333	1411	3794	4160	4382	4169	2740	MAX
MIN	716	538	0.0	0.0	466	897	905	1261	2362	3506	2882	1668	MIN
ACFT	82950	44426	349	27951	42365	108776	69612	166514	204046	249322	227411	119849	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day

a - 25 hr. day

b - 23 hr. day

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE GAGE HT MO DAY TIME	DISCHARGE GAGE HT MO DAY TIME	ACRE- FEET
1847			1343571

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC T.B.R. M O.B.B.M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	OATE			FROM	TO	
37 47 45	121 35 05	SW31 1S 4E				JUN 51-DATE		1951		0.00 USGS

Station located at Tracy Pumping Plant at intake to canal, 6 mi. SE of Byron, 10 mi. NW of Tracy.
Discharge computed from records of operation of pumps. Water is diverted from Sacramento-San
Joaquin Delta by way of Old River and a dredged channel to the Tracy Pumping Plant where it is
lifted about 200 ft. into canal. Records furnished by U.S.B.R.

TABLE B-5
DAILY MEAN DISCHARGE
DELTA-MENDOTA CANAL TO MENDOTA POOL
IN SECOND FEET

STATION NO	WATER YEAR
800770	1963

DAY	OCT.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	1615	510	238	0.0	200	895	1040	1149	2195	3000	2820	2161	1
2	1504	520	218	0.0	200	885	849	1289	1971	2846	2809	2136	2
3	1482	524	200	0.0	200	828	859	1340	1802	2816	2829	2109	3
4	1390	525	200	0.0	217	861	856	1497	1757	2805	2939	1932	4
5	1424	534	200	0.0	323	1358	868	1491	1790	2767	2966	1804	5
6	1488	530	175	0.0	500	1500	647	1499	1980	2642	2937	1577	6
7	1429	519	200	0.0	523	1463	667	1714	2428	2586	2854	1568	7
8	1436	511	200	0.0	894	1497	681	1734	2647	2590	2700	1592	8
9	1430	509	200	0.0	515	1498	702	1959	2616	2583	2705	1613	9
10	1408	503	370	0.0	370	1627	800	1944	2657	2544	2788	1370	10
11	1365	523	325	0.0	246	1637	937	1897	2668	2704	2701	1419	11
12	1199	497	17	0.0	245	1642	906	1814	2668	2805	2753	1248	12
13	1133	514	0.0	0.0	311	1635	928	1874	2581	2933	2752	1260	13
14	1147	506	0.0	0.0	206	1783	929	1875	2297	3037	2713	1290	14
15	794	499	0.0	0.0	195	1737	771	1897	2352	3058	2747	1281	15
16	700	490	0.0	0.0	196	1765	803	1918	2553	2904	2733	1313	16
17	700	490	0.0	0.0	196	1450	1047	1907	2547	2832	2782	1185	17
18	701	490	0.0	0.0	347	1465	1066	2092	2502	2812	2834	1180	18
19	715	490	0.0	0.0	627	1496	1100	2074	2508	2824	2800	1062	19
20	763	496	0.0	0.0	798	1713	1152	2137	2716	2917	2718	1082	20
21	745	504	0.0	573	677	1647	1158	2386	2717	2996	2554	1057	21
22	763	504	0.0	657	571	1580	1129	2628	2707	2983	2587	1051	22
23	786	515	0.0	724	580	1515	885	2664	1537	2856	2592	1052	23
24	909	515	0.0	742	585	1370	971	2733	1567	2821	2567	1064	24
25	894	516	0.0	819	573	1373	1132	2730	2316	2942	2506	1071	25
26	881	594	0.0	723	572	1435	1208	2612	2516	2878	2468	1105	26
27	912a	694	0.0	680	567	1440	1179b	2627	2759	2942	2252	1157	27
28	877	702	0.0	673	620	782	1020	2370	2893	2879	2258	1312	28
29	867	691	0.0	588	478	1055	1055	2267	3031	3016	2237	1320	29
30	561	664	0.0	465	635	1062	1062	2213	2857	2966	2200	1306	30
31	528		0.0	280		929		2223		2917	2082		31
MEAN	1050	536	82	223	430	1353	947	2018	2405	2845	2651	1389	MEAN
MAX	1615	702	370	819	894	1783	1208	2733	3031	3058	2966	2161	MAX
MIN	528	490	0.0	0.0	195	478	647	1149	1537	2544	2082	1051	MIN
ACFT	64629	31892	5044	13734	23909	83185	56247	124074	143078	174944	163008	82665	ACFT

E - Estimated
NR - No Record
* - Discharge measurement or observation
of no flow made on this day
a - 25 hr. day
b - 23 hr. day

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
1327											966409

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
36 47 11	120 23 05	NW19 13S 15E									

Station located approximately 2 mi. N of Mendota, where DMC crosses the Outside Canal, which is 0.6 mi. NW of Bass Avenue crossing (check No. 21). Flow measured by 3 Sparling meters located at siphon outlet.

Record furnished by U.S.B.R.

TABLE B-6

DAILY MEAN DISCHARGE
SAN JOAQUIN RIVER NEAR MENDOTA
 IN SECOND FEET

STATION NO	WATER YEAR
807710	1963

DAY	OCT	NOV	DEC.	JAN	FEB.	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	144	52	32	2	50	50	150	219	351	424	431	278	1
2	140	51	31	1	19	51	166	246	351	424	448	274	2
3	129	50	30	53	28	76	177	291	348	411	466	261	3
4	116	50	41	82	70	125	180	294	346	411	459	244	4
5	111	49	66	48	84	166	175	296	351	404	448	231	5
6	109	48	93	29	106	177	175	296	354	388	426	221	6
7	109	48	95	66	101	164	171	334	366	391	404	238	7
8	103	47	59	111	82	152	148	381	384	396	391	256	8
9	93	47	58	125	70	162	134	354	391	401	398	264	9
10	76	47	56	103	63	175	129	328	418	414	426	274	10
11	66	47	47	75	54	177	127	314	451	434	421	271	11
12	67	47	35	54	59	177	127	296	424	454	416	284	12
13	71	48	27	38	78	177	125	316	411	456	404	286	13
14	72	49	32	29	65	184	127	314	411	459	404	286	14
15	72	50	38	25	93	193	144	304	418	461	398	286	15
16	92	51	41	23	56	196	169	318	436	451	394	288	16
17	116	51	37	20	67	193	196	351	451	454	391	291	17
18	116	50	37	18	67	193	224	366	469	461	381	291	18
19	116	49	27	13	67	209	236	361	456	461	371	276	19
20	116	48	14	7	61	224	217	354	456	461	408	286	20
21	116	47	13	14	54	217	154	354	461	461	418	296	21
22	125	45	12	72	54	202	150	376	461	454	386	294	22
23	138	45	10	142	53	193	134	396	469	451	368	291	23
24	148	45	8	221	53	191	152	411	464	451	368	291	24
25	162	44	8	231	53	200	205	396	456	454	358	291	25
26	164	39	7	224	58	229	198	391	441	469	348	298	26
27	154	33	5	182	61	231	171	391	461	479	356	301	27
28	144	32	4	209	51	193	158	361	454	477	371	298	28
29	142	33	3	248	51	150	180	351	434	469	364	298	29
30	126	32	3	205	144	209	348	421	434	434	344	234	30
31	81		2	116	146		346		416	416	316		31
MEAN	114	46	31	90	62	172	167	337	419	440	396	276	MEAN
MAX	164	52	95	248	106	231	236	411	469	479	466	301	MAX
MIN	66	32	2	1	19	50	125	219	346	388	316	221	MIN
ACFT.	7010	2730	1930	5530	3450	10550	9930	20740	24920	27040	24360	16420	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

† - E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-Feet
213											154610

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M. O. B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 48 37	120 22 35	SW 7 13S 15E	8840		6-1-52	OCT 39-DATE	OCT 39-DATE	1939		142.53	USBR

Station located 2.5 mi. below Mendota Dam, 4 mi. N. of Mendota. Records furn. by U.S.B.R. Drainage area is 4,310 sq. mi. This station equipped with DWR radio telemeter.

TABLE B-7

DAILY MEAN DISCHARGE
BIG CREEK DIVERSION NEAR FISH CAMP
 IN SECOND FEET

STATION NO	WATER YEAR
867920	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	1.3	2.2	2.6E	2.3E	1.5	23	24	37	35	21	4.4	3.5	1
2	1.7	2.1	2.7	2.3E	0.0	22	23	37	34	20	5.9	3.4	2
3	2.0	2.1	2.1*	2.3E	0.0	21	24	38 *	33	17 *	6.1	3.1	3
4	2.3	2.0	1.8	2.0E	0.0	20	28	38	32	16	6.1	3.1	4
5	2.5	2.2*	2.6	2.0E	9.4	20	31	38	32	16	6.3	3.9	5
6	2.2	2.1	2.4	2.0E	34	20	34	38	32	16	6.5*	3.6	6
7	2.1	1.8	2.4	1.9E	32	22 *	42	39	31 *	15	6.7	3.3	7
8	2.0	1.8	2.4	1.7E	32	19	37	41	31	15	6.5	2.8	8
9	2.0	1.8	2.4	1.7E	33	20	34	43	30	15	6.4	2.6	9
10	2.0	1.8	2.3	1.6E	35 *	19	32	40	31	14	6.2	2.5	10
11	2.2*	1.8	2.3	1.5E	32	20	32	39	30	13	5.9	2.5	11
12	2.2	1.8	2.2	1.6E	31	19	33	38	30	13	5.7	2.5	12
13	2.1	1.9	2.1	1.6E	36	19	33	35	29	12	5.4	3.4	13
14	19	2.2	2.2	1.4E	33	18	40	36	28	12	5.0	3.3	14
15	4.7	2.3	3.9	1.2E	30	18	38	37	28	11	4.8	3.0	15
16	3.5	2.3	14	1.2E	29	15	35	38	27	11	4.5	3.2	16
17	3.2	2.4	5.3	1.2E	28	21	34	39	26	10	4.4	3.4*	17
18	2.7	2.3	5.4	1.3E	27	23	33	40	25	9.9	4.4	4.8	18
19	2.5	2.2	4.1	1.4E	26	22	33	40	24	9.3	4.5	5.2	19
20	2.4	2.4	3.4	1.4E	26	22	30	41	23	9.0	4.3	4.4	20
21	2.4	2.3	3.2E	1.2E	26	22	32	41	23	9.2	4.3	4.3	21
22	2.3	2.2	2.7E	1.3E	25	22	32	40	23	8.8	4.3	3.5	22
23	2.2	2.2	2.7E	1.3E	24	21	32	39	24	8.6	4.3	3.3	23
24	2.2	2.2	2.7E	1.2E	24	22	34	38	24	8.1	4.5	2.9	24
25	2.5	2.3	2.7E	1.3E	23	22	33	38	22	7.7	4.4	3.0	25
26	2.3	2.2	2.6E	1.2E	23	22	31	37	21	7.5	4.0	2.5	26
27	2.2	4.0	2.6E	1.2E	23	29	29	37	21	7.3	3.8	2.6	27
28	2.2	3.1	2.7E	1.4E	23	30	31	36	21	7.0	3.5	2.6	28
29	2.2	2.8	2.6E	1.1 E	28	36	36	36	22	6.9	3.3	2.4	29
30	1.9	2.4E	2.4E	83 E	28	39	35	35	21	6.6	3.6	2.2	30
31	2.2	2.4E	62 E	E	28	28	35	35	21	6.4	3.6	2.2	31
MEAN	2.9	2.2	3.2	6.4	23.8	21.8	32.6	38.2	27.1	11.6	5.0	3.2	MEAN
MAX	19.0	4.0	14.0	83.0E	36.0	30.0	42.0	43.0	35.0	21.0	6.7	5.2	MAX
MIN	1.3	1.8	2.1	1.2E	0.0	15.0	23.0	35.0	21.0	6.4	3.3	2.2	MIN
ACFT	177	133	196	396	1321	1343	1942	2348	1613	713	305	192	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

- E and *

MEAN

DISCHARGE

14.7

MAXIMUM

DISCHARGE

150E

3.58

1 30 2400

MINIMUM

DISCHARGE

NR

TOTAL

ACRE- FEET

10680

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.M. M.D. & B.M.	OF RECORD			DISCHARGE	GAGE HT. ONLY	DATE	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 26 10	119 36 52	NE25 5S 21E	150	3.58	1-30-63	DEC 56-DATE			195B		0.00 LOCAL

Station located 195 ft. above road culvert pipe, 1.4 mi. SE of Fish Camp. This is regulated diversion from Big Creek to Lewis Fork, Fresno River. Stage-discharge relationship at times affected by ice and extreme high flows affected by culvert pipe below station.

Maximum discharge determined from slope area survey and maximum capacity of culvert pipe below station.

TABLE B-8

DAILY MEAN DISCHARGE
LEWIS FORK FRESNO RIVER NEAR OAKHURST
IN SECOND FEET

STATION NO	WATER YEAR
867325	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	2+3	5+9	4+9	9+8	1090 #	50	NR	122	112	50	20	7+0	1
2	2+3	6+3	4+8	10	161	47	NR	119	110	48	18	5+9	2
3	5+0	6+0	4+9	10 *	58	45	NR	115	105	45	19	5+7	3
4	4+5	6+4	3+8	7+4	31	41	71.2**	109	108	44	19	6+0	4
5	4+7	5+9	4+1	6+5	35	42	NR	104	104	42	17	6+6	5
6	3+9	6+5	3+8	6+5	55	42	NR	106	108	41	18 *	5+9	6
7	4+0	5+8	4+8	6+7	51	42 *	NR	104	108	39	10	5+0	7
8	4+5	4+9	5+0	7+2	45	43	NR	125	102	37	17	4+2	8
9	3+8	4+9	3+2	6+8	68	45	NR	186	102	38	16	4+0	9
10	3+8	4+9	4+4	6+4	161 *	44	NR	165	101	35	16	4+0	10
11	5+4*	4+4	4+4	7+1	84	44	NR	167	100	33	16	4+4	11
12	8+7	3+8	4+3	5+2	77	44	71	154	99	33	10	4+4	12
13	9+2	3+5	4+7	4+9	111	43	68	140	95	31	8+9	5+3	13
14	53	3+9	5+7	6+4	94	44	151	135	93	30	8+9	6+4	14
15	19	4+0	7+8	8+2	76	47	190 *	128	96	29	8+1	6+3	15
16	13	3+8	35	8+1	70	51	122	121	91	27	7+9	5+8	16
17	11	4+0	16	7+7	67	51	96	122	87	25	7+9	6+1*	17
18	10	3+1	15	7+8	62	54	85	121	83	28	8+7	8+8	18
19	8+8	3+1	11	7+5	62	52	102	117	79	25	7+5	14	19
20	8+3	8+1	11	7+2	57	NR	97	116	77 E	25	7+2	14	20
21	8+5	7+2	9+0	7+7	57	NR	119	123	75 E	24	7+8	9+9	21
22	8+0	6+7	7+6	8+1	56	NR	107	134	73 E	26	7+3	8+8	22
23	8+0	5+7	8+7	7+2	53	NR	109	137	72 E	25	7+4	9+4	23
24	7+6	5+2	8+5	7+7	51	NR	107	134	70 E	23	7+9	8+8	24
25	7+6	5+4	5+9	6+5	53	NR	109	131	70 E	23	7+0	7+9	25
26	7+5	6+0	6+1	6+6	52	NR	123	131	66 E	24	7+0	7+3	26
27	6+3	8+8	7+1	5+9	52	NR	103	128	61 E	23	6+8	7+8	27
28	6+9	9+7	7+8	6+1	49	171 **	104	124	59	22	6+3	7+5	28
29	6+8	7+5	8+9	9+1		NR	112	120	58	21	6+1	7+2	29
30	6+7	6+1	7+8	430		NR	123	117	54	21	6+4	7+1	30
31	6+1		7+8	1900 E		NR		114		19	7+2		31
MEAN	8+6	5+6	7+9	69+1	105	NR	NR	128	87+3	30+8	10+9	7+1	MEAN
MAX	53+0	9+7	35+0	1900 E	1090 E	NR	NR	186	112	50+0	20+0	14+0	MAX
MIN	2+3	3+1	3+2	4+9	31+0	NR	NR	104	54+0	19+0	6+1	4+0	MIN
ACFT	526	332	483	4249	5827	NR	NR	7872	5193	1896	671	420	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

** - E and *

** - Result of discharge measurements.

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
NR	NR					NR					NR

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 20 44	119 38 20	SE 2 7S 21E	2930E	493	2- 1-63	SEP 61-DATE			1961	DATE	0.00 LOCAL

Station located 1.6 mi. N. of Oakhurst on Highway 41, 500 ft. downstream from Shady Oaks Motel.
Station located on left bank above concrete weir. Altitude of gage is approximately 2,520 ft.
(from topographic map.)

TABLE B-9

DAILY MEAN DISCHARGE

MIAMI CREEK NEAR OAKHURST

IN SECOND FEET

STATION NO.	WATER YEAR
867300	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	C.4	0.8	1.2	1.4	391 #	5.6	14	24	10	4.9	1.7	1.6	1
2	C.4	2.2	1.2	1.2	45	5.4	12	23	9.4	4.9	1.7	1.5	2
3	C.4	1.4	1.2	1.3*	20	5.2	12	21	8.9	4.6*	1.9	1.4	3
4	C.5	1.1	1.3	1.3	13	5.2	12	19	8.9	4.4	1.8	1.4	4
5	C.5	1.1*	1.3	1.3	10	5.2	14	19	9.1	4.5	1.8	1.5	5
6	C.6	1.1	1.2	1.3E	9.1	5.1	16	18	9.4	4.2	1.7*	1.4	6
7	C.6	1.0	1.2	1.3E	8.1	5.0	35	18	8.7*	4.2	1.6	1.3	7
8	C.6	0.9	1.2	1.3	7.2	5.0	28	21	8.0	3.9	1.7	1.2	8
9	C.5	0.9	1.1	1.3	8.6	5.0	20	30	7.4	3.8	1.7	1.2	9
10	C.5*	0.9	1.1	1.3	30	5.0	17	22	7.5	3.8	1.6	1.2	10
11	C.6	0.9	1.1	1.3	17	4.8*	15	24	7.8	3.6	1.5	1.2	11
12	C.6	0.9	1.1	1.2E	12	4.6	14	22	8.4	3.4	1.6	1.3	12
13	C.7	0.9	1.1	1.0E	22	4.4	14	19	8.4	3.3	1.5	1.4	13
14	2.6	1.0	1.1	1.4	18	4.6	42	18	8.1	3.2	1.6	1.5	14
15	1.4	1.1	1.2	1.3	12	5.1	50	17	7.9	3.1	1.5	1.4	15
16	1.2	1.1	6.1	1.3	10	5.2	29	15	7.3	3.1	1.5	1.4	16
17	2.4	1.1	2.6	1.3	9.5	5.8	22	14	7.1	3.1	1.5	1.4*	17
18	3.4	1.1	2.4	1.2	8.6	6.0	18	14	6.8	3.0	1.4	1.7	18
19	1.2	1.2	1.9	1.1	7.9	6.1	22	13	3.8	2.7	1.5	2.3	19
20	1.0	1.2	1.6	1.1	7.5	6.4	21	12	5.9	2.7	1.5	3.1	20
21	1.0	1.2	1.4	1.1	7.6	7.3	20	12	5.9	2.6	1.5	2.0	21
22	C.9	1.1	1.3	1.2	7.2	8.1	21	11	5.8	2.6	1.6	1.7	22
23	C.9	1.1	1.3	1.2	6.7	14	23	11	6.2	2.4	1.6	1.4	23
24	C.9	1.1	1.3	1.2	6.4	12	24	12	6.1	2.4	1.7	1.4	24
25	1.1	1.1	1.2	1.2E	6.1	11	22	12	5.7	2.2	1.7	1.3	25
26	1.0	1.1	1.3	1.1E	5.9	11	23	11	5.4	2.2	1.5	1.2	26
27	C.9	1.4	1.1	1.2E	5.9	16	22	11	5.0	2.2	1.4	1.0	27
28	C.9	1.5	1.2	1.3E	5.7	38	22	11	5.0	2.1	1.4	1.0	28
29	C.8	1.3	1.2	1.6		23	24	11	5.0	1.9	1.4	1.0	29
30	C.8	1.2	1.2	95 E		17	25	11	4.9	1.8	1.6	1.0	30
31	C.8		1.3	443 E		1.6		10		1.8	1.6		31
MEAN	1.0	1.1	1.5	18.5	25.6	9.0	21.8	16.3	7.1	3.2	1.6	1.4	MEAN
MAX.	3.4	2.2	6.1	443 E	391 E	38.0	50.0	30.0	10.0	4.9	1.9	3.1	MAX.
MIN.	C.4	C.8	1.1	1.0	5.7	4.4	12.0	10.0	3.8	1.8	1.4	1.0	MIN.
ACFT.	60	67	91	1139	1424	552	1295	1004	424	196	98	86	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
8.9	1140	E	9.08	2	1 0110	0.3	2.4	10	1	1650	6435

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		
			C.F.S.	GAGE HT.	DATE				FROM	TO	REF. DATUM
37 23 38	119 39 10	SE22 6S 21E	1140E	9.08	2- 1-63	DEC 59-DATE			1959	Date	0.00

Station located 150 ft. below bridge, 4.5 mi. N. of Oakhurst. Tributary to Fresno River. Stage-discharge relationship at times affected by ice. Drainage area is 10.6 sq. mi. Recorder installed December 15, 1959. Altitude of gage is approximately 3,500 ft. (from topographic map.)

TABLE B-10

DAILY MEAN DISCHARGE
SAN JOAQUIN RIVER NEAR DOS PALOS
 IN SECOND FEET

STATION NO	WATER YEAR
807610	1963

DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	1	12	0.0	0.0	0.0	7	12	4	0.0	1
2	0.0	0.0	0.0	0.0	90	0.0	0.0	0.0	12	12	12	0.0	2
3	0.0	0.0	0.0	0.0	29	0.0	0.0	0.0	12	5	12	0.0	3
4	0.0	0.0	0.0	32	6	0.0	0.0	0.0	8	0.0	3	0.0	4
5	0.0	0.0	0.0	121	0.0	0.0	0.0	0.0	12	0.0	0.0	0.0	5
6	0.0	0.0	0.0	101	0.0	0.0	0.0	0.0	12	0.0	0.0	9	6
7	0.0	0.0	0.0	71	0.0	0.0	0.0	0.0	9	7	0.0	4	7
8	0.0	0.0	0.0	120	0.0	0.0	0.0	0.0	8	12	0.0	0.0	8
9	0.0	0.0	0.0	186	0.0	0.0	0.0	0.0	12	12	0.0	0.0	9
10	0.0	0.0	0.0	202	0.0	0.0	0.0	0.0	12	4	0.0	0.0	10
11	0.0	0.0	0.0	182	0.0	0.0	0.0	0.0	12	0.0	0.0	0.0	11
12	0.0	0.0	0.0	88	0.0	8	0.0	0.0	7	0.0	7	0.0	12
13	0.0	0.0	0.0	16	0.0	12	0.0	0.0	0.0	0.0	12	3	13
14	0.0	0.0	0.0	10	0.0	12	0.0	0.0	4	0.0	4	4	14
15	0.0	0.0	0.0	7	0.0	12	0.0	0.0	12	0.0	0.0	0.0	15
16	0.0	0.0	0.0	5	0.0	6	0.0	0.0	12	9	0.0	0.0	16
17	0.0	0.0	0.0	1	0.0	0.0	0.0	0.0	12	12	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8	12	10	0.0	0.0	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12	12	0.0	0.0	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12	12	0.0	0.0	0.0	20
21	0.0	0.0	12	0.0	0.0	0.0	0.0	12	12	0.0	0.0	0.0	21
22	0.0	0.0	18	0.0	0.0	0.0	0.0	12	4	8	7	0.0	22
23	0.0	0.0	16	0.0	0.0	0.0	0.0	0.0	0.0	11	12	4	23
24	0.0	0.0	12	0.0	0.0	0.0	0.0	0.0	9	0.0	3	0.0	24
25	0.0	0.0	10	0.0	0.0	0.0	0.0	0.0	12	0.0	0.0	0.0	25
26	0.0	0.0	8	0.0	0.0	0.0	0.0	0.0	12	0.0	0.0	0.0	26
27	0.0	0.0	6	0.0	0.0	0.0	0.0	0.0	12	9	0.0	0.0	27
28	0.0	0.0	5	0.0	0.0	0.0	0.0	0.0	12	5	0.0	9	28
29	0.0	0.0	4	0.0	0.0	0.0	0.0	0.0	12	0.0	0.0	5	29
30	0.0	0.0	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31
MEAN	0.0	0.0	3.0	37.0	4.9	1.6	0.0	1.8	9.9	4.1	2.5	1.3	MEAN
MAX	0.0	0.0	18	202	90	12	0.0	12	12	12	12	9	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	MIN
ACFT	186	2270	272	99	111	587	254	151	75	75	75	75	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

II - E and *

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE	DISCHARGE	ACRE- FEET
5.5	GAGE HT MO DAY TIME	GAGE HT MO DAY TIME	4005

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T.B.R. M D.B.B.M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 59 38	120 30 02		8200		6-5-52	OCT 40-DATE	OCT 40-DATE	1940		116.5	USED

Station located 800 ft. below the head of Temple Slough, 6.5 mi. E of Dos Palos. Records furnished by U.S.B.R.
 Drainage area is approx. 5,630 sq. mi.

TABLE B-11

DAILY MEAN DISCHARGE
EAST FORK CHOWCHILLA RIVER NEAR AHWAHNEE
IN SECOND FEET

STATION NO	WATER YEAR
B64400	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	1.0	2.6	2.2	137.0 E	23	98	100	36	13	2.6	1.0	1
2	0.0	1.0	2.3	2.0	180	23	87	95	34	12	2.5	1.0	2
3	0.0	1.0	2.3	1.9	115	24	75	90	32	12	2.3	1.0	3
4	0.0	1.0	2.3	2.2	106	21	69	86	29	11	2.3	0.9	4
5	0.0	1.0	2.3	2.4	103	22	64	82	30	11	2.3	0.8	5
6	0.0	1.1	2.2	2.7	102	20	68	78	31	11	2.4	0.8	6
7	0.0	1.2	2.2	2.8	101	19	278	74	33	11	2.3	0.7	7
8	0.0	1.1	2.1	2.6	101	19	166	81	29	11	2.2	0.6	8
9	0.0	1.2	2.3	2.8	106	21	115	122	26	9.9	2.2	0.5	9
10	0.0	1.2	2.3	2.6	218 *	20	107	90	26	9.2	1.9	0.4	10
11	0.0	1.2	2.2	2.6	116	19	92	100	27	9.1	1.8	0.3	11
12	0.0	1.2	2.0	2.8	109	17	83	91	28	8.7	1.6	0.3	12
13	0.1	1.3	1.9	2.8	138	16	75	82	30	7.7	1.8	0.4	13
14	2.3	1.6	2.1	2.6	125	17	284	83	27	7.3	1.4	0.5	14
15	6.6 *	2.0	2.5	2.7	103 E	26	304	75	24	6.8	1.4	0.6	15
16	2.8	2.6 *	12	2.7 *	85 E	36	157	68	22	6.5	1.3	0.6	16
17	1.8	2.3	7.9 *	3.1	69 E	52	122	62	20	6.2	1.2	0.6	17
18	1.3	2.1	4.8	3.0	51 E	36 *	108	56	18 *	6.4 *	1.1	0.8	18
19	1.0	2.2	4.0	3.8	46	45	139	53	17	6.1	1.1	1.3	19
20	0.9	2.2	3.5	3.5	41	55	176	51	16	5.4	1.1	4.8 *	20
21	0.8	2.2	3.0	3.9	37	48	199	48 *	16	5.3	1.0	3.1	21
22	0.8	2.1	2.8	3.9	35	47	159 *	44	17	5.2	1.1	2.2	22
23	0.8	2.1	2.8	3.9	32	142	141	44	17	4.7	1.2 *	1.9	23
24	0.9	2.0	2.8	4.3	30	105	128	45	17	4.6	1.3	1.7	24
25	0.9	2.0	2.7	4.3	28	82	119	45	16	4.3	1.3	1.5	25
26	1.0	2.0	2.6	4.7	27	68	169	44	15	4.2	1.3	1.2	26
27	1.2	2.5	2.6	4.7	26	77	132	42	14	4.3	1.2	0.8	27
28	1.3	3.2	2.4	4.7	26	438 *	115	40	14	4.1	1.0	0.6	28
29	1.1	3.1	2.3	5.3		151	107	41	14	3.7	1.0	0.5	29
30	1.0	2.7	2.4	365 *		115	103	39	13	3.5	1.0	0.5	30
31	1.0		2.2	1610 E		104		37		3.1	1.1		31
MEAN	1.6	1.8	3.0	66.7	130	61.5	135	67.4	22.9	7.4	1.6	1.1	MEAN
MAX.	23.0	3.2	12.0	1610 E	1370 E	438	304	122	36.0	13.0	2.6	4.8	MAX
MIN.	0.0	1.0	1.9	1.9	26.0	16.0	64.0	37.0	13.0	3.1	1.0	0.3	MIN
CFT.	96	106	187	4103	7192	3784	8011	4141	1365	453	98	63	CFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

** - E and *

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT	WD	DAY TIME	DISCHARGE	GAGE HT	WD	DAY TIME	ACRE FEET
40.9	3710	E 10.34	1	31 1530	0.0		10	1 1550	29600

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 20 09	119 48 59	SE 7 7S 20E	3710E	10.34	1-31-63	NOV 57-DATE			1957	Date	0.00 LOCAL

Station located 1.1 mi. above mouth, 5.5 mi. W of Ahwahnee. Drainage area 57.8 sq. mi.
Altitude of gage 980 ft. (from topographic map.)

TABLE B-12

DAILY MEAN DISCHARGE

WEST FORK CHOWCHILLA RIVER NEAR MARIPOSA

STATION NO	WATER YEAR
864300	1963

IN SECOND FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.1	0.4	916 #	7.6	33	50	14	3.1	0.2	0.0	1
2	0.0*	0.0	0.2	0.5	74	7.3	25	46	13	2.8	0.2	0.0	2
3	0.0	0.0	0.2	0.4	34	6.8	21	42	11	2.8	0.2	0.0	3
4	0.0	0.0	0.2	0.4*	20	6.2*	19	38	11	2.8	0.2	0.0	4
5	0.0	0.0	0.2	0.3	13	6.1	18	36	11	2.4	0.2	0.0	5
6	0.0	0.0	0.2	0.3	10	6.1	21	35	11	2.3	0.1	0.0	6
7	0.0	0.0	0.2	0.3	9.0	6.1	219	34	11	2.2	0.2	0.0	7
8	0.0	0.0	0.2	0.3	7.9	6.0	106	44	9.8	2.1	0.1	0.0	8
9	0.0	0.0	0.2	0.3	17	6.3	60	68	9.3	2.1	0.1	0.0	9
10	0.0	0.0	0.2	0.3	162	6.4	51	44	8.9	1.9	0.1	0.0	10
11	0.0	0.0	0.2	0.3	35	6.1	43	51	9.9	1.6	0.1	0.0	11
12	0.0	0.0	0.2	0.3	27	5.6	36	41	11	1.5	0.1	0.0	12
13	0.0	0.0	0.2	0.3	92	5.1	31	35	12	1.4	0.1	0.0	13
14	0.1	0.1	0.3	0.3	69	6.0	299	35	10	1.2	0.0	0.0	14
15	0.0	0.1	0.4	0.3	36	9.8	238	32	9.0	1.2	0.0	0.0	15
16	0.0	0.0*	2.5	0.3	27	17	111	29	8.2	1.0	0.0	0.0	16
17	0.0	0.0	2.3*	0.3	21	27	79	26	7.3	0.9	0.0	0.0	17
18	0.0	0.0	1.3	0.4	17	19	66	23	6.7*	0.9*	0.0	0.0	18
19	0.0	0.0	1.0	0.4	15	19	95	21	5.8	0.9	0.0	0.1	19
20	0.0	0.1	0.8	0.3	13	16	164	20	5.3	0.8	0.0	0.0*	20
21	0.0	0.1	0.8	0.3	12	14	176	19	5.0	0.8	0.0	0.0	21
22	0.0	0.1	0.7	0.4	11	12	123	19	4.9	0.7	0.0	0.0	22
23	0.0	0.1	0.7	0.4	10	46	100	18	4.9	0.6	0.0	0.0	23
24	0.0	0.1	0.7	0.4	9.6	35	84	20	5.2	0.6	0.0	0.0	24
25	0.0	0.1	0.6	0.4	8.9	21	75	20	4.5	0.5	0.0	0.0	25
26	0.0	0.1	0.6	0.4	8.4	17	119	19	4.1	0.5	0.0	0.0	26
27	0.0	0.2	0.6	0.4	7.9	18	85	18	3.8	0.5	0.0	0.0	27
28	0.0	0.1	0.5	0.4	7.5	207	68	18	3.5	0.4	0.0	0.0	28
29	0.0	0.1	0.5	0.5		57	59	18	3.4	0.4	0.0	0.0	29
30	0.0	0.1	0.5	233 *		38	55	16	3.3	0.4	0.0	0.0	30
31	0.0		0.5	1400 E		33		15		0.3	0.0		31
MEAN	0.0	0.0	0.6	53.0	60.4	22.4	89.3	30.6	7.9	1.3	0.1	0.0	MEAN
MAX	0.1	0.2	2.5	1400 E	916 E	207	299	68.0	14.0	3.1	0.2	0.1	MAX
MIN.	0.0	0.0	0.1	0.3	7.5	5.1	18.0	15.0	3.3	0.3	0.0	0.0	MIN.
ACFT.		3	35	3259	3352	1375	5314	1884	472	82	4		ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL ACRE-FEET
	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	
21.8	3520	E	8.63	1	31 1520	0.0		10	1	0000	15780

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 25 14	119 52 25	SE10 6S 19E	3590E	8.67	4- 3-58	NOV 57-DATE			1957		0.00 LOCAL

Station located 15 ft. below Indian Peak Road Bridge, 6.7 mi. SE of Mariposa. Drainage area is 33.6 sq. mi. Altitude of gage is 1,680 ft. (from topographic map.)

TABLE B-13

DAILY MEAN DISCHARGE
MIDDLE FORK CHOWCHILLA RIVER NEAR NIPINNAWASEE

STATION NO	WATER YEAR
864360	1963

IN SECOND FEET													
OAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OAY
1	0.0	0.1	0.2	0.3	4.73	4.0	17	26	9.6	2.8	0.2	0.2	1
2	0.0	0.1	0.2	0.4	3.9	3.9	14	24	9.1	2.7	0.2	0.2	2
3	0.0	0.1	0.2	0.4	1.7	3.8	12	23	8.2	2.1	0.2	0.2	3
4	0.0	0.1	0.2	0.3*	12	3.9	11	21	6.8	1.9	0.2	0.2	4
5	0.0	0.1	0.2	0.3	8.9*	4.8	10	19	6.6	1.8	0.2	0.2	5
6	0.0	0.2	0.2	0.3	7.3	4.8	10	19	6.8	1.6	0.1E	0.1	6
7	0.0	0.2	0.2	0.3	6.1	4.7	176	20	6.8	1.6	0.2E	0.1	7
8	0.0	0.1	0.2	0.3	5.2	4.5	59	25	6.5	1.5	0.2E	0.1	8
9	0.0	0.2	0.2	0.4	8.2	4.6	28	43	6.2	1.5	0.1E	0.1	9
10	0.0	0.2	0.2	0.4	7.1 *	4.4	25	25	6.2	1.2	0.1E	0.1	10
11	0.0	0.2	0.2	0.4	17	4.4	23	28	6.2	1.0	0.1E	0.1	11
12	0.0	0.2	0.2	0.3	14	4.1	22	23	6.8	0.8	0.1E	0.1	12
13	0.1	0.2	0.2	0.3	44	3.7	20	20	7.1	0.7	0.1E	0.1	13
14	3.9	0.3	0.2	0.3	36	4.3	141	21	5.9	0.6	0.1E	0.2	14
15	0.3*	0.3	0.3	0.3	18	5.7	125	19	5.5	0.6	0.1E	0.2	15
16	0.1	0.3*	2.7	0.3	14	8.0	46	17	5.0	0.5	0.1E	0.2	16
17	0.1	0.3	1.2*	0.3	11	11	32	17	4.9	0.5	0.1E	0.2	17
18	0.1	0.3	0.7	0.3	9.7	8.4*	28	15	4.1*	0.5*	0.1E	0.3	18
19	0.1	0.2	0.6	0.4	8.8	13	52	14	3.6	0.5	0.1E	0.4	19
20	0.1	0.2	0.5	0.4	7.8	19	78	14	3.5	0.5	0.1E	0.4*	20
21	0.1	0.3	0.4	0.4	6.4	15	87	12 *	3.5	0.5	0.1E	0.3	21
22	0.1	0.2	0.4	0.4	5.8	11	71	12	3.8	0.5	0.1E	0.3	22
23	0.1	0.2	0.4	0.3	5.3	37	54	12	4.0	0.5	0.1E	0.3	23
24	0.1	0.2	0.4	0.3	4.8	24	38	13	3.9	0.4	0.2	0.3	24
25	0.1	0.2	0.4	0.3	4.5	13	30	12	3.7	0.3	0.1	0.2	25
26	0.2	0.2	0.4	0.4	4.5	11	68	12	3.2	0.3	0.2	0.2	26
27	0.4	0.2	0.4	0.4	4.5	11	44	12	3.0	0.3	0.1	0.2	27
28	0.4	0.2	0.4	0.4	4.2	182 *	34	11	3.1	0.3	0.1	0.1	28
29	0.1	0.2	0.4	0.4	35	29	11	11	3.1	0.3	0.1	0.1	29
30	0.1	0.2	0.4	13*	21	28	9.9	9.9	3.1	0.2	0.2	0.1	30
31	0.1	0.4	572 *	572 *	17	17	9.3	9.3	0.2	0.2	0.2	0.1	31
MEAN	0.2	0.2	0.4	23.1	31.0	16.2	47.1	18.0	5.3	0.9	0.1	0.2	MEAN
MAX	3.9	0.3	2.7	572	473	182	176	43.0	9.6	2.8	0.2	0.4	MAX
MIN	0.0	0.1	0.2	0.3	4.2	3.7	10.0	9.3	3.0	0.2	0.1	0.1	MIN
ACFT	12	12	26	1421	1722	996	2801	1109	317	57	8	12	ACFT

WATER YEAR SUMMARY

MEAN	MAXIMUM				MINIMUM				TOTAL ACRE- FEET
	DISCHARGE	GAGE HT	WD	DAY TIME	DISCHARGE	GAGE HT	WD	DAY TIME	
11.7	1280	10.10	2	1 0150	0.0	10	1	0000	8492

E - Estimated
NR - No Record
* - Discharge measurement or observation
of no flow made on this day
- E and *

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 22 56	119 50 11	NE25 6S 19E	1280	10.10	2- 1-63	MAR 58-DATE	MAR 58-DATE	1956	Date	0.00	LOCAL

Station located 6 mi. W of Nipinawasee, 10 mi. SE of Mariposa. Tributary to East Fork Chowchilla River. Drainage area is 12.3 sq. mi. Altitude of gage is 1,520 ft. (from topographic map.)

TABLE B-14

DAILY MEAN DISCHARGE
STRIPED ROCK CREEK NEAR RAYMOND
IN SECOND FEET

STATION NO.	WATER YEAR
B64260	1963

DAY	OCT.	NOV	DEC.	JAN	FEB.	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	0.1	0.1	0.2	297 #	5.4	6.9	14	4.3	0.3	0.0	0.1	1
2	0.0	0.1	0.2	0.2	23	5.2	5.8	13	3.9	0.3	0.0	0.0	2
3	0.0	0.1	0.2	0.2	12	4.5	5.0	13	3.5	0.2*	0.1	0.0	3
4	0.0	0.1	0.2	0.2	9.4	3.4*	5.7	12	3.1	0.2	0.1	0.0	4
5	0.0	0.1	0.1	0.2	7.5	2.8	5.0	11	3.1*	0.3	0.1	0.1*	5
6	0.0	0.1	0.1	0.2	6.1	2.8	5.2	11 *	3.2	0.2	0.0	0.0	6
7	0.0	0.1	0.2	0.2	5.0	2.8	8.4	10	2.8	0.2	0.0	0.0	7
8	0.0	0.1	0.2	0.2	4.7	2.5	29	11	2.7	0.2	0.0	0.0	8
9	0.0	0.1	0.1	0.3	11	2.5	15	16	2.6	0.1	0.0	0.0	9
10	0.1	0.1	0.2	0.2	78	2.2	12	11	2.5	0.1	0.0	0.0	10
11	0.1	0.1	0.2	0.2	15	2.1	11	11	2.8	0.1	0.0	0.0	11
12	0.1	0.1	0.2	0.2	14	2.3	9.5	9.8	2.8	0.1	0.0	0.0	12
13	0.2	0.1	0.2	0.2	41	1.7	8.9	9.1	2.9	0.1	0.0	0.0	13
14	1.5	0.2	0.2	0.2	18	2.5	104	9.4	2.4	0.1	0.0	0.0	14
15	0.3*	0.2	0.3	0.2	13	4.3	55	8.7	2.1	0.0	0.0	0.0	15
16	0.2	0.1*	1.7	0.2*	12	5.0	26	8.0	1.9	0.0	0.0	0.0	16
17	0.2	0.2	0.4*	0.2	10	16	19	7.2	1.6	0.1	0.0	0.0	17
18	0.3	0.2	0.2	0.2	9.1	7.5	16	6.3	1.1	0.1	0.0	0.0	18
19	0.3	0.2	0.2	0.2	8.6	4.7	31	5.6	0.9	0.0	0.0	0.1	19
20	0.3	0.2	0.2	0.2	8.1	3.6	79	5.4	0.8	0.0	0.0	0.1	20
21	0.3	0.1	0.2	0.2	7.3	3.1	78	5.0	0.6	0.0	0.0	0.0	21
22	0.3	0.2	0.2	0.2	7.0	3.4	34	5.1	0.7	0.0	0.0	0.1	22
23	0.3	0.2	0.2	0.2	6.5	12	26	5.0	0.7	0.0	0.0	0.0	23
24	0.4	0.2	0.2	0.2	6.1	4.1	21	5.2	0.7	0.0	0.0	0.0	24
25	0.3	0.2	0.2	0.2	6.1	3.2	22	5.4	0.6	0.0	0.0	0.0	25
26	0.3	0.1	0.2	0.2	5.7	2.8	47	4.9	0.5	0.0	0.0	0.0	26
27	0.2	0.2	0.2	0.2	5.2	3.0	25	4.5	0.4	0.0	0.0	0.0	27
28	0.1	0.2	0.2	0.1	4.9	101 *	20	4.4	0.4	0.0	0.0	0.0	28
29	0.1	0.2	0.2	0.1	15	17	17	4.9	0.4	0.0	0.0	0.0	29
30	0.1	0.2	0.2	63 *	9.6	15	15	4.5	0.4	0.0	0.0	0.0	30
31	0.1	0.2	0.2	300 E	7.6	7.6	4.4	4.4	0.0	0.0	0.0	0.0	31
MEAN	0.2	0.1	0.2	11.9	23.3	8.0	27.9	8.3	1.9	0.1	0.0	0.0	MEAN
MAX	1.5	0.2	1.7	300 E	297 E	101	104	16.0	4.3	0.3	0.1	0.1	MAX
MIN.	0.0	0.1	0.1	0.1	4.7	1.7	5.0	4.4	0.4	0.0	0.0	0.0	MIN.
ACFT	12	9	15	731	1292	493	1662	507	112	5	1	1	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day.

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FOOT
6.7	892 E	7.53	2	1	0150	0.0		10	1	0000	4841

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM TO	ZERO ON GAGE	REF DATUM	
			C.F.S.	GAGE HT.	DATE						
37 20 27	119 53 35	NE 9 7S 19E	1180E	8.87	4- 3-58	NOV 57-DATE		1957		0.00	LOCAL

Station located 8.7 mi. N of Raymond, 11 mi. SE of Mariposa. Tributary to Chowchilla River. Drainage area is 17.1 sq. mi. Altitude of gage is approximately 1090 ft. (from USGS topographic maps.)

MARIPOSA CREEK NEAR CATHAY

STATION NO	WATER YEAR
862400	1963

DAY	OCT.	NOV	IN SECOND FEET												OAY
			DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT.			
1	0.0	0.0	0.0	1.5	1700	10	5.7	6.4	12	2.3	0.0	0.0	1		
2	0.0*	0.0*	0.0	1.6	153	9.7	41	5.7	11	2.1	0.0	0.0	2		
3	0.0	0.0	0.0	1.6	62	50	9.6	10	32	1.7	0.0	0.0	3		
4	0.0	0.0	0.0	1.5	35	8.9	26	4.4	8.7	0.0	0.0	0.0	4		
5	0.0	0.0	0.0*	1.4	21	8.2	21	3.8	8.4	1.8	0.0	0.0*	5		
6	0.0	0.0	0.0	1.4	15	8.1	23	3.5	8.6	1.7	0.0*	0.0	6		
7	0.0	0.0	0.0	1.4	11	8.1	32.7	3.4	7.9	1.6	0.0	0.0	7		
8	0.0	0.0	0.0	1.4	9.2	7.5	17.9	4.0	7.4	0.0	0.0	0.0	8		
9	0.0	0.0	0.0	1.4	6.6	9.5	10.2	6.5	6.8	1.4	0.0	0.0	9		
10	0.0	0.0	0.0	1.3	6.7	8.8	7.5	3.9	6.4	1.3	0.0	0.0	10		
11	0.0	0.0	0.2	1.3	120	8.2	5.8	4.1	7.0	1.0	0.0	0.0	11		
12	0.0	0.0	0.8	1.2	7.9	7.6	4.7	3.4	7.3	0.9	0.0	0.0	12		
13	0.0	0.0	0.9	1.1	52.9	6.8	3.8	3.0	7.2	0.8	0.0	0.0	13		
14	0.0	0.0	1.0	1.1	33.2	7.5	4.23	2.7	7.2	0.6	0.0	0.0	14		
15	0.0*	0.0	1.3	1.2*	12.5	1.3	4.40	2.5	6.5	0.5	0.0	0.0	15		
16	0.0	0.0*	8.6	1.2	7.9	2.4	2.11	2.3	5.6	0.4	0.0	0.0	16		
17	0.0	0.0	1.6	1.2	5.5	7.2	1.32	2.1	4.9*	0.3	0.0	0.0	17		
18	0.0	0.0	6.3	1.3	4.1	5.3	9.5	1.9	4.2	0.3*	0.0	0.0	18		
19	0.0	0.0	4.1	1.2	3.3	3.3	1.43	1.8	3.7	0.3	0.0	0.0*	19		
20	0.0	0.0	3.3	1.2	2.6	2.4	3.33	1.7	3.4	0.3	0.0	0.0	20		
21	0.0	0.0	2.8	1.2	2.0	2.0	4.15	1.6	3.3	0.2	0.0	0.0	21		
22	0.0	0.0	2.5	1.2	1.8	2.1	2.40	1.6	3.7	0.1	0.0	0.0	22		
23	0.0	0.0	2.2	1.2	1.6	4.7	1.62	1.6	3.3	0.1	0.0*	0.0	23		
24	0.0	0.0	2.1	1.2	1.4	4.6	1.21	1.7	3.1	0.1	0.0	0.0	24		
25	0.0	0.0	2.0	1.2	1.3	3.1	1.08	1.8	3.1	0.0	0.0	0.0	25		
26	0.0	0.0	1.8*	1.3	1.2	2.5	1.99	1.6	2.9	0.0	0.0	0.0	26		
27	0.0	0.0	1.8	1.2	1.1	2.4	1.28	1.4	2.5	0.0	0.0	0.0	27		
28	0.0	0.0	1.6	1.2	1.1	6.62	1.00	1.4	2.5	0.0	0.0	0.0	28		
29	0.0	0.0	1.6	1.3	1.3	1.55	8.5	1.4	2.6	0.0	0.0	0.0	29		
30	0.0	0.0	1.6	4.53	*	8.6	7.5	1.3	2.3	0.0	0.0	0.0	30		
31	0.0	0.0	1.6	2490	*	6.4		1.2		0.0	0.0	0.0	31		
MEAN	0.0	0.0	4.6	96.1	152	49.0	1.48	28.6	5.8	0.7	0.0	0.0	MEAN		
MAX	0.0	0.0	86.0	2490	1700	662	4.40	65.0	12.0	2.3	0.0	0.0	MAX		
MIN	0.0	0.0	0.0	0.0	1.1	6.8	2.10	1.2	0.3	0.0	0.0	0.0	MIN		
ACFT			281	5912	8436	3012	8799	1759	344				ACFT		

E - Estimated
NR - No Record
* - Discharge measurement or observation
of no flow made on this day.
- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
39.5	5290	10.69	2	1	0150	0.0		10	1	0000	28590

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D. & B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 23 55	120 00 10	NE21 6S 18E	7180 ^B	11.62	4- 3-58	NOV 57-DATE		1957		0.00	LOCAL

Station located at Co. Rd. bridge, 5.6 mi. E. of Cathay School. Tributary to San Joaquin River. Drainage area is 66.0 sq. mi. Altitude of gage is 1100 ft. (from topographic map.)

a-Previously reported as 4530E cfs. After obtaining additional high flow discharge measurements, the stage-discharge relation for high flows was more closely defined. Maximum discharge of record adjusted to present rating. See Table B-1 for additional information.

TABLE B-16

DAILY MEAN DISCHARGE
MARIPOSA CREEK BELOW MARIPOSA RESERVOIR
 IN SECOND FEET

STATION NO	WATER YEAR
B62100	1963

DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	0.0	916	15	64	80	10 a	1.8	0.0	0.0	1
2	0.0	0.0	0.0	0.0	896	16	50	63	10 a	1.7	0.0	0.0	2
3	0.0	0.0	0.0	0.0	738	14	38	58	9.9a	1.5	0.0	0.0	3
4	0.0	0.0	0.0	0.0	637	14	35	48	9.3a	1.3	0.0	0.0	4
5	0.0	0.0	0.0	0.0	325	16	32	40	9.0a	1.2	0.0	0.0	5
6	0.0	0.0	0.0	0.0	64	16	23	35	8.7a	1.0	0.0	0.0	6
7	0.0	0.0	0.0	0.0	24	14	62	33	8.1a	0.7	0.0	0.0	7
8	0.0	0.0	0.0	0.0	22	14	321	32	7.8a	0.5	0.0	0.0	8
9	0.0	0.0	0.0	0.0	22	14	187	48	7.5a	0.2	0.0	0.0	9
10	0.0	0.0	0.0	0.0	343	15	127	46	7.2	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	374	16	90	34	7.2	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	134	14	67	33	6.9	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	174	13	50	28	6.9	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	449	12	124	25	6.9	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	275	16	375	24	6.9	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	108	16	355	21	6.6	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	64	27	239	20	6.3	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	43	46	155	20	5.3	0.0	0.0	0.0	18
19	0.0	0.0	0.0	0.0	38	39	134	19	5.0	0.0	0.0	0.0	19
20	0.0	0.0	0.0	0.0	32	30	183	18	4.6	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	28	25	410	17	4.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	23	21	360	16	3.6	0.0	0.0	0.0	22
23	0.0	0.0	0.0	0.0	22	28	244	16	3.4	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	21	43	190	16	3.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	0.0	19	39	134	15	2.6	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	19	29	180	14 a	2.4	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	18	27	198	13 a	2.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	17	258	148	12 a	2.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0		427	120	12 a	1.9	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0		198	96	11 a	1.9	0.0	0.0	0.0	30
31	0.0	0.0	0.0	552		93		11 a		0.0	0.0	0.0	31
MEAN	0.0	0.0	0.0	18	210	50	160	28	5.9	0.3	0.0	0.0	MEAN
MAX.	0.0	0.0	0.0	552	916	427	410	80	10.0a	1.8	0.0	0.0	MAX
MIN.	0.0	0.0	0.0	0.0	17	12	23	11 a	1.9	0.0	0.0	0.0	MIN
ACFT	0.0	0.0	0.0	1095	11687	3106	9515	1742	352	20	0.0	0.0	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

† - E and *

a - Partially estimated

WATER YEAR SUMMARY

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	DISCHARGE	GAGE HT	MO	DAY	ACRE-Feet
38.0	941		2	1	0.0				27517

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.D.B&M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 16 52	120 09 45	NE36 7S 16E	6020		12-24-55	NOV 52-DATE	NOV 52-DATE	1952		337.63	USCGS

Station located 1.5 mi. below Mariposa Dam. Tributary to San Joaquin River via Bear Creek. Flow regulated by Mariposa Reservoir. Records furn. by U.S.C.E. Drainage area is 108 sq. mi.

TABLE B-17

DAILY MEAN DISCHARGE

MARIPOSA BYPASS NEAR CRANE RANCH

STATION NO	WATER YEAR
B00420	1963

IN SECOND FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
MEAN													MEAN
MAX.													MAX.
MIN.													MIN.
ACFT.													ACFT.

No flow

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day.

± - E and *

MEAN
DISCHARGE

MAXIMUM			
DISCHARGE	GAGE HT.	MO.	DAY TIME

MINIMUM			
DISCHARGE	GAGE HT.	MO.	DAY TIME

TOTAL
ACRE- FEET
NR

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 12 00	130 41 50	NW 31 8S 11E						1962		0.00
										USCGS

This station was installed in January 1962 for the Lower San Joaquin Flood Control Project for the purpose of recording flows diverted into Mariposa bypass by float activated electrically operated gates. No continuous water stage recorder is installed to date. Miscellaneous measurements of instantaneous discharge will be presented when appropriate.

TABLE B-18

DAILY MEAN DISCHARGE

OWENS CREEK BELOW OWENS RESERVOIR

STATION NO	WATER YEAR
806170	1963

IN SECOND FEET														DAY
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY	
1	0.1	0.5	0.5	0.5	76 a	2	6	8	0.8	0.0	0.0	0.0	1	
2	0.2	0.5	0.5	0.5	43 a	2	5	7	0.8	0.0	0.0	0.0	2	
3	0.2	0.5	0.5	0.5	7	2	4	6	0.6	0.0	0.0	0.0	3	
4	0.3	0.5	0.5	0.5	4	2	3	5	0.5	0.0	0.0	0.0	4	
5	0.4	0.5	0.5	0.5	3	2	3	4	0.5	0.0	0.0	0.0	5	
6	0.4	0.5	0.5	0.5	2	2	3	4	0.5	0.0	0.0	0.0	6	
7	0.4	0.5	0.5	0.5	2	2	9	4	0.5	0.0	0.0	0.0	7	
8	0.4	0.5	0.5	0.5	2	2	12	5	0.5	0.0	0.0	0.0	8	
9	0.5	0.5	0.5	0.5	7 a	2	6	11	0.5	0.0	0.0	0.0	9	
10	0.5	0.5	0.5	0.5	73 a	2	5	5	0.5	0.0	0.0	0.0	10	
11	0.5	0.5	0.5	0.5	22 a	2	4	5	0.5	0.0	0.0	0.0	11	
12	0.5	0.5	0.5	0.5	8	2	4	4	0.5	0.0	0.0	0.0	12	
13	0.5	0.5	0.5	0.5	55 a	2	4	3	0.5	0.0	0.0	0.0	13	
14	0.5	0.5	0.5	0.5	73	2	18	3	0.5	0.0	0.0	0.0	14	
15	0.5	0.5	0.5	0.5	19	4	39	3	0.5	0.0	0.0	0.0	15	
16	0.5	0.5	5.0	0.6	10	3	16	3	0.5	0.0	0.0	0.0	16	
17	0.5	0.5	1.2	0.6	7	4	11	2	0.5	0.0	0.0	0.0	17	
18	0.5	0.5	0.7	0.6	5	4	8	2	0.5	0.0	0.0	0.0	18	
19	0.5	0.5	0.6	0.6	4	3	9	2	0.5	0.0	0.0	0.0	19	
20	0.5	0.5	0.6	0.6	4	2	23	1.8	0.5	0.0	0.0	0.0	20	
21	0.5	0.5	0.6	0.6	3	2	80	1.6	0.5	0.0	0.0	0.0	21	
22	0.5	0.5	0.6	0.6	3	2	48	1.5	0.5	0.0	0.0	0.0	22	
23	0.5	0.5	0.6	0.6	3	6	19	1.5	0.5	0.0	0.0	0.0	23	
24	0.5	0.5	0.6	0.6	3	4	14	1.5	0.5	0.0	0.0	0.0	24	
25	0.5	0.5	0.6	0.6	3	3	12	1.6	0.5	0.0	0.0	0.0	25	
26	0.5	0.5	0.5	0.6	2	3	42	1.5	0.5	0.0	0.0	0.0	26	
27	0.5	0.5	0.5	0.6	2	3	21	1.3	0.4	0.0	0.0	0.0	27	
28	0.5	0.5	0.5	0.6	2	60	14	1.2	0.2	0.0	0.0	0.0	28	
29	0.5	0.5	0.5	0.7		46	11	1.2	0.1	0.0	0.0	0.0	29	
30	0.5	0.5	0.5	1.7		10	9	1.2	0.0	0.0	0.0	0.0	30	
31	0.5		0.5	34.0a		7		1.0		0.0	0.0	0.0	31	
MEAN	0.4	0.5	0.7	1.7	16	6.2	15	3.3	0.5	0.0	0.0	0.0	MEAN	
MAX	0.5	0.5	5.0	34.0	76	60	80	11	0.8	0.0	0.0	0.0	MAX	
MIN	0.1	0.5	0.5	0.5	2.0	2.0	3.0	1.0	0.0	0.0	0.0	0.0	MIN	
ACFT	27.6	29.8	42.8	103	887	385	920	204	28.6	0.0	0.0	0.0	ACFT	

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

- E and W

a - Flow partially computed from reservoir outlet

MEAN		MAXIMUM				MINIMUM				TOTAL	
DISCHARGE	3.6	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME
		88		4	21		0.0				
											2627

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 18 28	120 11 35	SW23 7S 16E	590		12-24-55	FEB 50-DATE		1950		338.22	USCGS

Station located 0.25 mi. below Owens Dam. Tributary to San Joaquin River, via Mariposa Creek and Bear Creek. Flow regulated by Owens Reservoir. Records furnished by U.S.C.E. Drainage area is 25.6 sq. mi.

TABLE B-19

DAILY MEAN DISCHARGE
BEAR CREEK NEAR CATHAY

STATION NO	WATER YEAR
855400	1963

IN SECOND FEET

DAY	OCT.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	0.0	0.0	0.6	1060 E	2.0*	41	24	1.3	0.3	0.0	0.0	1
2	0.0*	0.0*	0.0	0.6	95	1.8	33	19	1.2	0.4	0.0	0.0	2
3	0.0	0.0	0.0	0.6	40	1.8	23	17	1.1	0.3	0.0	0.0	3
4	0.0	0.0	0.0	0.5	24	1.5	19	14	1.0	0.3	0.0	0.0	4
5	0.0	0.0	0.0*	0.5	15	1.4	17	12	0.8	0.3	0.0	0.0*	5
6	0.0	0.0	0.0	0.5	11	1.3	17	9.7	0.9	0.3	0.0*	0.0	6
7	0.0	0.0	0.0	0.5	8.0	1.2	34	8.6	0.9	0.2	0.0	0.0	7
8	0.0	0.0	0.0	0.4	5.7	1.2	36	12	0.9	0.2	0.0	0.0	8
9	0.0	0.0	0.0	0.5	40	1.4	28	19	0.8	0.3	0.0	0.0	9
10	0.0	0.0	0.0	0.4	290	1.4	21	11	0.8	0.3	0.0	0.0	10
11	0.0	0.0	0.0	0.3	61	1.3	18	14	0.8	0.3	0.0	0.0	11
12	0.0	0.0	0.0	0.3	41	1.2	15	11	0.9	0.2	0.0	0.0	12
13	0.0	0.0	0.0	0.3	374	1.0	13	8.7	0.8	0.2	0.0	0.0	13
14	0.0	0.0	0.0	0.3	154	1.2	312 E	7.6	0.7	0.2	0.0	0.0	14
15	0.0*	0.0	0.0	0.3*	58	2.6*	336	6.1	0.6	0.2	0.0	0.0	15
16	0.0	0.0*	24	0.3	33	3.7	114	5.2	0.6	0.2	0.0	0.0	16
17	0.0	0.0	8.6	0.3	22	29	60	4.7	0.5*	0.2	0.0	0.0	17
18	0.0	0.0	3.7	0.3	17	37	39	4.0	0.4	0.2	0.0	0.0	18
19	0.0	0.0	2.3	0.3	13	28	75	3.4	0.4	0.2	0.0	0.0*	19
20	0.0	0.0	1.7	0.2	11	18	219	3.3	0.4	0.2	0.0	0.0	20
21	0.0	0.0	1.3	0.3	8.0	14	248	2.8	0.4	0.1	0.0	0.0	21
22	0.0	0.0	1.1	0.3	6.4	18	108	2.5	0.4	0.1	0.0	0.0	22
23	0.0	0.0	0.9	0.2	5.4	66	63	2.4	0.3	0.1	0.0*	0.0	23
24	0.0	0.0	0.8	0.2	4.5	42	43	2.6*	0.3	0.1	0.0	0.0	24
25	0.0	0.0	0.7	0.2	3.5	27	37	2.7	0.3	0.1	0.0	0.0	25
26	0.0	0.0	0.5*	0.2	3.1	20	122	2.3	0.3	0.1	0.0	0.0	26
27	0.0	0.0	0.7	0.2	2.7	20	80	2.1	0.3	0.0	0.0	0.0	27
28	0.0	0.0	0.7	0.2	2.3	5.6 #	51	1.8	0.3	0.0	0.0	0.0	28
29	0.0	0.0	0.6	0.2	108	37	1.7	0.3	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.6	128	54	29	1.6	0.3	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.6	937 #	39	4538	1.5	0.0	0.0	0.0	0.0	0.0	31
MEAN	0.0	0.0	1.6	34.7	86.0	36.2	76.3	7.7	0.6	0.2	0.0	0.0	MEAN
MAX.	0.0	0.0	24.0	937 E	1060 E	576 E	336	24.0	1.3	0.4	0.0	0.0	MAX
MIN.	0.0	0.0	0.0	0.2	2.3	1.0	13.0	1.5	0.3	0.0	0.0	0.0	MIN
ACFT.			97	2132	4777	2225	4538	473	38	11			ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day.

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
19.7	3850 E	9.98	2	1	0220	0.0		10	1	0000	14290

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 28 38	120 06 43	SW21 58 17E	3850E	9.98	2-1-63	DEC 57-DATE		1957		0.00 LOCAL

Station located at Co. Rd. bridge, 3.7 mi. N of Cathay School. Tributary to San Joaquin River. Drainage area is 24.6 sq. mi. Altitude of gage is approx. 1,210 ft. (From U.S.G.S. topographic map.)

TABLE B-20

DAILY MEAN DISCHARGE
BEAR CREEK BELOW BEAR RESERVOIR
 IN SECOND FEET

STATION NO	WATER YEAR
R05570	1963

DAY	OCT	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	3	1185	14	43	40	6	0.4	0.0	0.0	1
2	0.0	0.0	0.0	3	424	14	38	35	6	0.4	0.0	0.0	2
3	0.0	0.0	0.0	3	75	13	30	31	5	0.4	0.0	0.0	3
4	0.0	0.0	0.0	3	42	12	23	28	5	0.3	0.0	0.0	4
5	0.0	0.0	0.0	3	28	12	18	25	4	0.3	0.0	0.0	5
6	0.0	0.0	0.0	3	21	11	17	22	4	0.3	0.0	0.0	6
7	0.0	0.0	0.0	3	14	10	21	21	4	0.3	0.0	0.0	7
8	0.0	0.0	0.0	3	12	12	38	20	4	0.2	0.0	0.0	8
9	0.0	0.0	0.0	3	14	11	32	33	3	0.1	0.0	0.0	9
10	0.0	0.0	0.0	3	450	11	27	30	3	0.1	0.0	0.0	10
11	0.0	0.0	0.0	3	140	11	22	23	3	0.1	0.0	0.0	11
12	0.0	0.0	0.0	3	80	12	19	23	3	0.0	0.0	0.0	12
13	0.0	0.0	0.0	3	400	12	16	19	3	0.0	0.0	0.0	13
14	0.0	0.0	0.0	2	506	11	157	16	3	0.0	0.0	0.0	14
15	0.0	0.0	0.0	2	135	14	488	14	3	0.0	0.0	0.0	15
16	0.0	0.0	0.0	2	90	18	195	14	3	0.0	0.0	0.0	16
17	0.0	0.0	0.0	3	68	21	94	12	2	0.0	0.0	0.0	17
18	0.0	0.0	0.0	3	52	50	55	10	2	0.0	0.0	0.0	18
19	0.0	0.0	0.0	2	43	56	56	10	1	0.0	0.0	0.0	19
20	0.0	0.0	0.0	2	37	44	152	9	1	0.0	0.0	0.0	20
21	0.0	0.0	0.0	2	32	34	513	9	1	0.0	0.0	0.0	21
22	0.0	0.0	0.5	2	28	30	190	8	1	0.0	0.0	0.0	22
23	0.0	0.0	4	3	25	54	105	8	1	0.0	0.0	0.0	23
24	0.0	0.0	4	3	23	84	74	8	1	0.0	0.0	0.0	24
25	0.0	0.0	4	2	21	56	50	8	0.9	0.0	0.0	0.0	25
26	0.0	0.0	4	3	19	46	139	8	0.8	0.0	0.0	0.0	26
27	0.0	0.0	4	3	17	41	135	8	0.7	0.0	0.0	0.0	27
28	0.0	0.0	4	3	16	647	86	7	0.6	0.0	0.0	0.0	28
29	0.0	0.0	4	3	290	55	7	0.5	0.0	0.0	0.0	0.0	29
30	0.0	0.0	4	4	78	44	7	0.4	0.0	0.0	0.0	0.0	30
31	0.0	0.0	3	513	49	49	6	6	0.0	0.0	0.0	0.0	31
MEAN	0.0	0.0	1.2	19	143	57	98	17	2.5	0.9	0.0	0.0	MEAN
MAX	0.0	0.0	4	513	1185	647	513	40	6	0.4	0.0	0.0	MAX
MIN.	0.0	0.0	0.0	2	12	10	16	6	0.4	0.0	0.0	0.0	MIN.
ACFT	0.0	0.0	70	1188	7932	3531	5816	1029	150	5.7	0.0	0.0	ACFT

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day.
 ‡ - E and *

WATER YEAR SUMMARY

MEAN		MAXIMUM					MINIMUM					TOTAL	
DISCHARGE		DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET	
27.2		1320		2	1		0.0					19722	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.D.B&M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 21 27	120 14 05	NE 5 7S 16E	4460		12-24-55	JAN 55-DATE			1955		320.50 USCGS

Station located approx. 0.75 mi. below Bear Dam. Tributary to San Joaquin River. Flow regulated by Bear Reservoir. Records furn. by U.S.C.E. Drainage area is 72 sq. mi.

TABLE B-21

DAILY MEAN DISCHARGE

BURNS CREEK AT HORNITOS

IN SECOND FEET

STATION NO	WATER YEAR
856400	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	0.0	0.0	0.0	252 #	1.4	8.1	17	0.6	0.1	0.0	0.0	1
2	0.0*	0.0	0.0	0.0	22	1.4	5.2	15	0.5	0.1	0.0	0.0	2
3	0.0	0.0	0.0	0.1	9.3	1.1	4.5	14	0.4	0.0*	0.0	0.1	3
4	0.0	0.0	0.0	0.1	6.0	1.0	3.9*	13	0.4*	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.1	4.4	1.0	3.7	12	0.3	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.1	3.0	1.0	4.0	11 *	0.3	0.0	0.0	0.0	6
7	0.0	0.0	0.0	0.1	2.6	0.9	4.8	11	0.3	0.0	0.0	0.0	7
8	0.0	0.0	0.0	0.1	2.1	1.0	3.9	13	0.3	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.1	103 E	1.1	3.2	16	0.2	0.0	0.0	0.0	9
10	0.0	0.0	0.0	0.1	118 *	1.0	3.0	13	0.1	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.1	12	0.9	2.9	14	0.1	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.1	29	0.9	2.5	11	0.1	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.1	231	0.8	2.2	7.2	0.1	0.0	0.0	0.0	13
14	0.1	0.0	0.0	0.1	43	1.0	71	4.0	0.1	0.0	0.0	0.0	14
15	0.0	0.0	0.1	0.1*	14	1.4*	70	1.7	0.1	0.0	0.0	0.0	15
16	0.0	0.0	5.0	0.1	8.9	1.9	15	1.5	0.1	0.0	0.0	0.0	16
17	0.0	0.0	0.5	0.1	6.2	1.9	8.6	1.4	0.1	0.0	0.0	0.0	17
18	0.0	0.0	0.2	0.1	4.9	1.5	6.1	1.2	0.1	0.0	0.0	0.0	18
19	0.0	0.0	0.2	0.2	4.2	1.1	13	1.0	0.1	0.0	0.0	0.0	19
20	0.0	0.0	C.1	0.2	3.6	1.0	219 E	1.0	0.1	0.0	0.0	0.0	20
21	0.0	0.0	0.1	0.2	3.1	1.0	127	1.0	0.1	0.0	0.0	0.0	21
22	0.0	0.0	0.1	0.2	2.8	3.5	28	1.0	0.1	0.0	0.0	0.0	22
23	0.0	0.0	0.1	0.1	2.3	6.0	15	0.9	0.1	0.0	0.0	0.0	23
24	0.0	0.0	0.1	0.2	2.0	2.8	9.8	0.9	0.1	0.0	0.0	0.0	24
25	0.0	0.0	0.1	0.2	1.7	2.3	8.9	0.9	0.1	0.0	0.0	0.0	25
26	0.0	0.0	0.1*	0.2	1.6	2.2	40	0.9	0.1	0.0	0.0	0.0	26
27	0.0	0.0	0.1	0.2	1.6	9.5	13	0.9	0.1	0.0	0.0	0.0	27
28	0.0	0.0	0.1	0.2	1.4	287 E	8.4	0.8	0.1	0.0	0.0	0.0	28
29	0.0	0.0	0.1	0.3	21	6.6	0.8	0.1	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.1	1.0	10	5.7	0.7	0.1	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	99 #	8.0	0.6	0.6	0.6	0.1	0.0	0.0	0.0	31
MEAN	0.0	0.0	0.2	3.3	32.0	12.1	23.9	6.1	0.2	0.0	0.0	0.0	MEAN
MAX.	0.1	5.0	5.0	99.0E	252 E	287 E	219 E	17.0	0.6	0.1	0.0	0.1	MAX.
MIN.	0.0	0.0	0.0	0.0	1.4	0.8	2.2	0.6	0.1	0.0	0.0	0.0	MIN.
ACFT			14	206	1777	747	1422	374	11				ACFT.

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day.

- E and *

WATER YEAR SUMMARY

MEAN		MAXIMUM				MINIMUM				TOTAL	
DISCHARGE		DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME
6.3		1340	E	6.93	4	20	1610	0.0	10	1	0000
											4551

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 29 42	120 14 17	SE17 5S 16E	4340E	10.66	2-15-62	DEC 58-DATE	DEC 58-DATE	1958		0.00	LOCAL

Station located 130 ft. S of Stockton-Mariposa Road, 0.2 mi. SW of Hornitos. Drainage area is 26.7 sq. mi.
Maximum discharge from slope-area measurement. Altitude of gage is approx. 780 ft. (From U.S.G.S. topographic map)

TABLE B-22

DAILY MEAN DISCHARGE

BURNS CREEK BELOW BURNS RESERVOIR
IN SECOND FEET

STATION NO	WATER YEAR
B56400	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	0.0	260	4	14	10	0.5	0.0	0.0	0.0	1
2	0.0	0.0	0.0	0.0	63	4	11	9	0.5	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	16	4	8	8	0.5	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	7	3	7	8	0.5	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	5	4	6	7	0.5	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.0	4	4	6	6	0.0	0.0	0.0	0.0	6
7	0.0	0.0	0.0	0.0	3	4	6	6	0.0	0.0	0.0	0.0	7
8	0.0	0.0	0.0	0.0	3	3	6	5	0.0	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.0	80	3	6	6	0.0	0.0	0.0	0.0	9
10	0.0	0.0	0.0	0.0	364	3	5	7	0.0	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	58	3	5	6	0.0	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	60	3	4	6	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	494	2	4	5	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	246	2	7	5	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	66	4	106	4	0.0	0.0	0.0	0.0	15
16	0.0	0.0	1.9	0.0	46	4	59	4	0.0	0.0	0.0	0.0	16
17	0.0	0.0	1.4	0.0	31	4	20	3	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.9	0.0	20	4	10	2	0.0	0.0	0.0	0.0	18
19	0.0	0.0	0.5	0.0	15	4	8	2	0.0	0.0	0.0	0.0	19
20	0.0	0.0	0.4	0.0	11	4	87	2	0.0	0.0	0.0	0.0	20
21	0.0	0.0	0.2	0.0	9	4	427	1.5	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.2	0.0	8	3	100	1.5	0.0	0.0	0.0	0.0	22
23	0.0	0.0	0.1	0.0	7	3	54	1.5	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.1	0.0	6	4	34	1.5	0.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	0.0	6	5	22	1.5	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	5	5	79	1.5	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	5	5	70	1.5	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	4	339	31	1.5	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	79	18	18	1.5	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0	32	14	14	1.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	79	17	17	17	1.0	0.0	0.0	0.0	0.0	31
MEAN	0.0	0.0	0.2	2.5	68	18	41	4.1	0.1	0.0	0.0	0.0	MEAN
MAX	0.0	0.0	1.9	79	494	339	427	10	0.5	0.0	0.0	0.0	MAX
MIN	0.0	0.0	0.0	0.0	3	2	4	1.0	0.0	0.0	0.0	0.0	MIN
ACFT	0.0	0.0	11	157	3773	1123	2448	251	5	0.0	0.0	0.0	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

H - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
10.7	890		3	28		0.0					7768

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 22 27	120 16 35	NE36 6S 15E	2590		12-24-55	APR 50- DATE		1950		260.60 USGS

Station located 0.5 mi. below Burns Dam. Tributary to San Joaquin River via Bear Creek. Flow regulated by Burns Reservoir. Records furnished by U.S.C.E. Drainage area is 73.8 sq. mi.

TABLE B-23

DAILY MEAN DISCHARGE
SAN JOAQUIN RIVER NEAR STEVINSON

STATION NO	WATER YEAR
807400	1963

IN SECOND FEET														
OAY	OCT	NOV	DEC	JAN	FEB	MAR.	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY	
1	22	9.1	12	16	177	97	659	881	115	61	55	53	1	
2	25	9.1	9.0	15	515	90	591	581	124	67	54	54	2	
3	23	9.2	7.9	15	1590	83	458	441	127	78	51	54	3	
4	21	20	7.7	15	2120 *	77	349	339	127	89	56	53	4	
5	32	30	7.7	13	1630	74	234	326	120	100	60	54	5	
6	36	30	7.9	11	1020	67	229	249	120	104	66	55	6	
7	33	22	7.7	40	579	60	356	212	128	104	71	54	7	
8	28	17	7.9	87	298	56	390	180	134	95	74	50	8	
9	23	12	8.3	96	190	51	371	161	143	92	73	47	9	
10	17	11	8.3	88	403	48	339	149	135	97	70	43	10	
11	17	12	8.5	75	722	45	400	145	144	91	66	42	11	
12	17	14	8.3	54	1040	42	456 *	258	137	81	69	43	12	
13	20	14	8.7	62	1230	40	445	261	146	72	71	47	13	
14	17	14	9.0	64	1490	39	412	205	164	67	68	62	14	
15	14	13 *	9.9	61	1960	38	393	196	164	72	69	77	15	
16	14	13	17	47	1930	41	644	184	151	71	65	83	16	
17	13	13	21	35 *	1370	40	920	167	150	61	61	82	17	
18	13	13	34	29	932	49	1140	142	145	58	58	78 *	18	
19	12	8.9	38 *	24	648	59	1080	124	123	56	56	94	19	
20	12	7.8	39	23	464	57	916	106	99 *	58	59	106	20	
21	11	9.3	39	22	354	52 *	905	99 *	83	61	56	125	21	
22	10	12	37	20	279	52	1120	96	75	61	54 *	141	22	
23	10	11	35	19	193	53	1530	91	73	53	50	145	23	
24	10	10	33	20	162	79	1700	90	76	51	53	143	24	
25	11	8.9	31	27	144	103	1560	97	88	52	59	112	25	
26	11	9.3	29	23	131	87	1370	95	93	54	65	114	26	
27	11	11	23	18	116	91	1200	101	90	56	74	91	27	
28	11	11	19	16	106	103	1180	111	79	53	79	80	28	
29	10	11	18	17		252	1160	122	75	52	66	73	29	
30	9.5	12	16	23		765	1070	127	67	52	58	70	30	
31	9.2		15	51		775		126		56			31	
MEAN	16.9	13.3	18.5	36.3	778	115	787	209	117	70.2	62.6	77.5	MEAN	
MAX	36.0	30.0	39.0	96.0	2120	775	1700	881	164	104	79.0	145	MAX	
MIN	9.2	7.8	7.7	11.0	106	38.0	229	90.0	67.0	51.0	50.0	42.0	MIN	
ACFT	1037	789	1136	2233	43230	7071	46800	12820	6932	4314	3648	4612	ACFT	

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day.
 † - E and *

WATER YEAR SUMMARY

MEAN		MAXIMUM				MINIMUM				TOTAL	
DISCHARGE		DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME
186		2190	68.94	2	4	1040	7.3	60.66	11	20	1840

134800

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 17 42	120 51 00	26 7S 10E	6060	73.04	2-17-62	OCT 61-DATE			1961		0.00 USCGS

Station located on bridge 2.3 miles south of Stevinson on Lander Avenue.

TABLE B-24

DAILY MEAN DISCHARGE
PANOCHÉ DRAIN NEAR DOS PALOS

STATION NO	WATER YEAR
B00975	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1				6.5**				20.6**		56.2**			1
2													2
3													3
4			8.4**										4
5													5
6					19.1**								6
7		12.2**								39.6**			7
8													8
9													9
10													10
11													11
12													12
13	17.8**												13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
MEAN													MEAN
MAX													MAX
MIN													MIN
AC.FT.													AC.FT.

INSUFFICIENT DATA TO PUBLISH DAILY FLOWS
 STATION DISCONTINUED AS OF

7-2-63

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
 of no flow made on this day.

E - End *

** - Result of discharge
 measurement.

MEAN		MAXIMUM				MINIMUM				TOTAL	
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-Feet
		8.12	2	11	0700						NR

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE
			C.F.S.	GAGE HT.	DATE			FROM	TO	
36 55 25	120 41 19	NW 5 12S 12E		8.12	2/11/63	FEB 59-SEP 62	FEB 59-JUL 63	1959		0.00

Station located midway between outside and main canals 0.5 mi. S of main canal levee road, 5.6 mi. SW of Dos Palos. This is drainage returned to San Joaquin River. Gage sometimes affected by backwater due to inadequate drainage facilities. Station discontinued 7-2-63.

TABLE B-25

DAILY MEAN DISCHARGE
NORTH FORK MERCED RIVER NEAR COULTERVILLE

STATION NO	WATER YEAR
852600	1963

DAY	IN SECOND FEET												DAY
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	
1	0.3	0.6	0.5	0.6	1100 E	6.7*	35	34	11	2.8	1.4	1.1	1
2	0.2	0.6	0.6	0.6	151	6.6	27	30	10	2.6	1.4	1.1	2
3	0.2	0.4	0.7*	0.5	49	6.6	23	28	9.7	2.7*	1.4	1.0	3
4	0.2	0.4	0.8	0.5*	26	6.4	19	25	9.2*	2.6	1.4	0.8*	4
5	0.3	0.5*	0.7	0.4	17	6.4	17	23	9.1	2.4	1.4	0.8	5
6	0.3	1.0	0.7	0.4	13	6.3	24	23 *	8.9	2.4	1.4	1.0	6
7	0.4	0.9	0.9	0.4	10	6.1	39	22	8.7	2.3	1.3	0.9	7
8	0.5	0.8	0.9	0.4	9.2	5.9	38	30	8.2	2.4	1.3	0.8	8
9	0.5	0.8	0.9	0.5	11	6.8	34	32	7.6	2.3	1.3	0.9	9
10	0.6	0.6	1.0	0.4	25	6.3	31	29	7.9	2.1	1.3	0.8	10
11	0.7	0.5	1.0	0.4	15	6.3	27	45	8.3	2.1	1.4	0.9	11
12	0.8	0.4	1.1	0.4	14	6.3	24	42	7.2	2.1	1.4	0.8	12
13	1.0	0.4	1.2	0.4	44 *	5.8	21	35	6.9	2.1	1.4	1.0	13
14	1.0	0.4*	1.3	0.4	51	6.3	145	30	6.8	1.8	1.0E	1.0	14
15	0.5*	0.5	2.0	0.4	30	7.6	207	26	5.8	1.7	1.0E	1.0	15
16	0.6	0.6	8.0	0.4	20	9.0	122	24	5.4	1.6	0.9E	0.8	16
17	0.8	0.7	1.9	0.4	16	11	74	21	5.0	1.6	0.9E	0.8	17
18	1.1	0.9	1.5*	0.4	13	9.9	55	20	4.6	1.5	0.9E	0.8	18
19	1.4	1.1	1.3	0.3	11	11	79	19	4.3	1.5*	0.8E	0.9*	19
20	1.6	1.2	1.0	0.3	9.4	13	94	18	3.9	1.4	0.8E	0.9	20
21	1.6	1.3	1.2	0.3	8.4	13	104	16	3.7	1.5	0.8E	1.0	21
22	1.7	1.5	1.2	0.3	8.1	14	110 *	16	4.0	1.5	0.8E	0.9	22
23	1.9	1.6	1.2	0.3	8.1	26	111	15	4.0	1.5	0.7E	1.1	23
24	1.9	1.7	1.0	0.4	7.7	32	96	15	3.7	1.4	0.7E	1.1	24
25	2.0	1.7	1.0	0.4	7.7	24	79	15	3.5	1.3	0.6E	1.1	25
26	2.2	1.9	0.9	0.5	7.2	19	69	14	3.2	1.3	0.6H	1.2	26
27	2.2	1.1	0.9	0.5	6.9	22	57	13	3.0	1.3	0.6E	1.2	27
28	2.3	0.6	0.8	0.5	6.9	212 *	49	13	3.1	1.3	0.5H	1.1	28
29	1.1	0.6	0.8	0.7		117	43	13	2.9	1.3	0.8	1.1	29
30	0.4	0.4	0.7	186 *		60	39	12	2.9	1.4	1.0	1.1	30
31	0.5	0.7	1690 #			41		11		1.5	1.0		31
MEAN	1.0	0.9	1.2	60.9	60.6	23.6	63.1	22.9	6.1	1.8	1.0	1.0	MEAN
MAX	2.3	1.9	8.0	1690 E	1100 E	212	207	45.0	11.0	2.8	1.4	1.2	MAX
MIN	0.2	0.4	0.5	0.3	6.9	5.8	17.0	11.0	2.9	1.3	0.5E	0.8	MIN
CFT	61	51	76	3746	3363	1449	3753	1406	362	114	64	58	ACFT

WATER YEAR SUMMARY

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day
 # - E and *

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	DISCHARGE	GAGE HT	MO	DAY	ACRE FEET
20.0	NR				NR				14500

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 44 51	120 02 12	NW19 2S 18E	3440	7.83	1-31-63	DEC 58-DATE			1956		0.00 LOCAL

Station located 40 ft. above Greeley Hill Road Bridge, 9 mi. NE of Coulterville. Drainage area is 30.3 sq. mi.
 Altitude of gage is 2,360 ft. (from U.S.G.S. topographic map.)

TABLE B-26

DAILY MEAN DISCHARGE
MAXWELL CREEK AT COULTERVILLE

STATION NO.	WATER YEAR
851250	1963

IN SECOND FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	0.2	279 E	1.5*	18	9.8	2.2	0.4	0.0	0.0	1
2	0.0	0.1	0.0	0.2	14	1.4	15	9.4	2.3	0.4	0.0	0.0	2
3	0.0*	0.1	0.0	0.2	5.0	1.5	12	8.5	2.0	0.3*	0.0	0.0	3
4	0.0	0.1	0.0	0.2	3.0	1.3	8.0	7.9	2.0*	0.3	0.0	0.0	4
5	0.0	0.0	0.0	0.2	2.3	1.4	6.5	7.0	1.9	0.3	0.0	0.0	5
6	0.0	0.0	0.0	0.2	1.8	1.5	8.5	6.8*	1.9	0.3	0.0	0.0	6
7	0.0	0.0	0.0	0.3	1.5	1.4	14	6.3	1.8	0.3	0.0	0.0	7
8	0.0	0.0	0.0	0.3	1.4	1.3	11	9.8	1.6	0.3	0.0	0.0	8
9	0.0	0.0	0.0	0.3	5.0	1.5	8.9	9.6	1.5	0.2	0.0	0.0	9
10	0.0	0.0	0.0	0.2	4.9	1.3	7.6	10	1.6	0.2	0.0	0.0	10
11	0.0	0.0	0.0	0.2	7.9	1.2	6.9	35	1.7	0.1	0.0	0.0	11
12	0.0	0.0	0.0	0.2	5.5	1.3	5.9	20	1.8	0.2	0.0	0.0	12
13	0.0	0.0	0.0	0.2	97	1.1	5.5	15	1.8	0.2	0.0	0.0	13
14	0.3	0.0	0.1	0.2	38	1.3	106	12	1.6	0.1	0.0	0.0	14
15	0.0	0.0	0.2	0.2*	11	1.7	139	9.9	1.3	0.1	0.0	0.0	15
16	0.0	0.0	6.1	0.2	6.2	2.8	50	7.7	1.2	0.1	0.0	0.0	16
17	0.0	0.0	1.3	0.2	4.6	6.1	26	7.1	1.1	0.1	0.0	0.0	17
18	0.0	0.0	0.6*	0.2	3.4	6.3	18	6.3	1.0	0.1	0.0	0.0	18
19	0.0	0.0	0.5	0.2	2.9	6.3	56	5.2	0.9	0.1*	0.0	0.0	19
20	0.0	0.0	0.4	0.2	2.6	8.6	88	4.6	0.9	0.0	0.0	0.0	20
21	0.0	0.0	0.3	0.2	2.2	8.2	124	4.3	0.9	0.0	0.0	0.0	21
22	0.0	0.0	0.3	0.2	1.9	9.3	94 *	4.0	1.0	0.0	0.0	0.0	22
23	0.0	0.0	0.3	0.2	1.9	34	51	3.8	0.9	0.0	0.0	0.0	23
24	0.0	0.0	0.2	0.3	1.8	18	31	3.5	0.8	0.0	0.0	0.0	24
25	0.0	0.0	0.2	0.2	1.6	9.8	23	3.4	0.7	0.0	0.0	0.0	25
26	0.1	0.0	0.2	0.3	1.6	6.4	27	2.9	0.6	0.0	0.0	0.0	26
27	0.1	0.1	0.3	0.3	1.6	9.1	19	2.7	0.6	0.0	0.0	0.0	27
28	0.0	0.0	0.2	0.3	1.5	263 #	16	2.8	0.5	0.0	0.0	0.0	28
29	0.1	0.0	0.2	0.3	47	14	2.8	0.6	0.0	0.0	0.0	0.0	29
30	0.1	0.0	0.2	52 *	20	12	2.2	0.5	0.0	0.0	0.0	0.0	30
31	0.1	0.0	0.2	331 #	15		2.0		0.0	0.0	0.0	0.0	31
MEAN	0.0	0.0	0.4	12.6	19.8	15.8	34.1	7.8	1.3	0.1	0.0	0.0	MEAN
MAX	0.3	0.1	6.1	331 E	279 E	263 E	139	35.0	2.3	0.4	0.0	0.0	MAX
MIN	0.0	0.0	0.0	0.2	1.4	1.1	5.5	2.0	0.5	0.0	0.0	0.0	MIN
ACFT	2	1	23	773	1101	973	2027	481	78	8			ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
7.6	1300 E	5.47	1	31	2330	0.0		10	1	0000	5466

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 42 58	120 11 20	SE34 2S 16E	1720E ^a	5.73	2- 8-60	DEC 58-DATE			1958		0.00 LOCAL

Station located below Dogtown Road Bridge, 0.5 mi. NE of Coulterville. Tributary to Merced River.
 Drainage area is 17.0 sq. mi. Altitude of gage is 1740 ft. (from topographic map.)

a-Previously reported as 956 cfs. After obtaining additional high flow discharge measurements,
 the stage-discharge relation for high flows was more closely defined. See Table B-1 for
 additional information.

TABLE 8-27

DAILY MEAN DISCHARGE
MERCED RIVER BELOW SNELLING
 IN SECOND FEET

STATION NO	WATER YEAR
005170	1963

OAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	OAY
1	61	8.6	7.5	9.9	177	1510	868	887	2880	132	84	65	1
2	16	7.8	7.6	9.7	61	499	862	892	2900	140	85	70	2
3	8.8	8.6	7.8	9.2	38	67	875	882	3270	149	84	62	3
4	7.2	11	9.7	8.5	32	55	857	873	3000	164	86	61	4
5	6.1	11	9.4	10	31	48	631	780	1750	147	85	64	5
6	6.7	12	9.4	14	766	45	971	558	1740	84	76	68	6
7	8.4	12	9.2	17	552	42	1080	743	1490	72	73	61	7
8	8.0	11	8.8	18	1440	50	978	1540	987	76	84	60	8
9	7.1	10	9.9	18	1520	99	868	3150	1190	73	81	66	9
10	6.3	10	9.2	17	1630	107	679	4630	1060	72	82	61	10
11	6.3	9.9	9.6	17	1510	82	664	3930	203	80	85	59	11
12	6.4	9.2	11	16	1510	68	676	3420	165	81	85	56	12
13	7.7	8.8	9.3	17	1730	63	670	1970	145	77	85	75	13
14	11	7.9	11	16	1550	64	851	1250	145	77	87	66	14
15	11	6.9	29	17	1530	65	856	1090	139	78	91	66	15
16	13	6.9	45	17	1510	64	829	1190	792	80	85	67	16
17	15	6.8	33	18	1510	69	733	2440	3010	86	88	69	17
18	14	7.4	25	19	1500	74	859	3530	2930	98	85	81	18
19	11	8.0	21	23	1500	62	990	3720	2940	104	73	76	19
20	12	7.6	20	24	1500	54	974	3960	2300	100	70	63	20
21	12	7.5	19	24	1500	48	946	4030	2230	101	56	60	21
22	11	7.6	18	24	1510	46	893	4110	1390	104	68	60	22
23	11	7.9	17	25	1490	42	896	4230	901	108	72	61	23
24	9.8	7.8	17	25	1490	42	1270	4120	758	112	76	63	24
25	9.3	6.3	16	25	1490	41	1450	2830	428	107	75	48	25
26	9.3	8.7	14	26	1500	42	1720	2730	262	107	70	45	26
27	8.6	10	12	25	1490	44	1580	3690	347	96	71	41	27
28	8.4	8.3	10	24	1500	311	1420	3990	447	92	61	42	28
29	8.6	7.4	10	25		1130	1180	3070	403	91	61	38	29
30	8.1	7.7	10	32		1020	1090	2890	195	97	64	38	30
31	8.7		10	100		875		2700		93	62		31
MEAN	11.2	8.8	14.7	21.6	1199	220	981	2575	1347	99.3	77.1	60.4	MEAN
MAX.	61.0	12.0	45.0	100	1730	1510	1720	4630	3270	164	91.0	81.0	MAX.
MIN.	6.1	6.8	7.5	8.5	31.0	41.0	664	558	139	72.0	56.0	38.0	MIN.
ACFT.	690	521	903	1330	66580	13540	58350	156300	80130	6105	4740	3594	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

- E and *

MEAN	MAXIMUM					MINIMUM				
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME
545	4910	12.51	5	10	0510	5.7	4.85	10	5	2400

TOTAL
394800

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 30 06	120 27 03	NE17 5S 14E	4910	12.51	5-10-63	NOV 58-DATE			1958		0.00 LOCAL

Station located 0.2 mi. below Merced-Snelling Highway Bridge, 1.4 mi. SW of Snelling. Flow regulated by Exchequer power plant and Lake McClure. Prior to November, 1958, records available for a site 3.6 mi. downstream. Altitude of gage is 221 feet, USGS datum.

222

44-38861-1055

[illegible]

TABLE B-29

DAILY MEAN DISCHARGE
ORESTIMBA CREEK NEAR CROWS LANDING
IN SECOND FEET

STATION NO	WATER YEAR
B08720	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	2.8	0.0*	0.0	0.0	1880 #	0.0	60	68	29	8.7	14	10	1
2	1.8	0.0	0.0	0.0	359 *	0.0	39	21	22	6.4	13	24	2
3	1.8	0.0	0.0*	0.0*	101	0.0	71	9.6	12	13	11	12	3
4	1.3	0.0	0.0	0.0	27 *	0.0	55	6.7	1.9	9.4	16	12	4
5	1.1	0.0	0.0	0.0	5.6	0.0	23	4.4	2.8	8.4	26	12	5
6	1.7	2.1	0.0	0.0	0.9	0.0*	26	5.2	1.9	11	12	23	6
7	0.7	0.1	0.0	0.0	0.0	0.0	264	16.4	1.4	15	11	29	7
8	0.4	0.0	0.0	0.0	0.0	0.0	158	6.3	2.1	27	12	31	8
9	0.4	0.0	0.0	0.0	0.0	0.0	96	11	4.0	25	9.7	18	9
10	0.3	6.1	0.0	0.0	57	12	67	6.4	10	8.5	9.9	8.9	10
11	0.1	2.2	0.0	0.0	40	21	65	5.7	24	6.5	8.2	6.5	11
12	0.2	0.2	0.0	0.0	15	1.2	104	6.8	20	11	11	11	12
13	0.1	0.0	0.0	0.0	399	2.3	109	8.0	25	18	13	20	13
14	0.1	3.5	0.0	0.0	314 *	4.4	113	8.4	7.1	14	13	16	14
15	0.0	2.9*	0.0	0.0	127	3.3	73	6.6	2.4	7.6	18	9.2	15
16	0.0	0.7	0.0	0.0	62	41	76	8.4*	2.5	8.4	12	5.7	16
17	0.0	0.1	0.0*	0.0	31	85	101	12	2.6	8.2*	16	5.7	17
18	0.0*	0.0	0.0	0.0*	16	11	76	10	3.5	8.2	14	7.2*	18
19	0.0	0.0	0.0	0.0	6.8	1.7	74 *	8.5	2.2*	9.3	25	8.5	19
20	0.0	0.0	0.0	0.0	2.1	0.9*	88	8.5	1.0	13	16 *	7.8	20
21	0.0	0.0	0.0	0.0	1.5	13	141	9.5	1.9	13	12	8.8	21
22	0.0	0.0	0.0	0.0	0.0	49	123	13	2.5	13	12	8.1	22
23	0.0	0.8	0.0	0.0	0.0	101	128	6.5	3.0	13	11	6.4	23
24	0.0	3.0	0.0	0.0	0.0	55	84	12	5.1	15	12	11	24
25	0.0	0.7	0.0	0.0	0.0	104	55	4.2	4.8	12	9.7	7.4	25
26	0.0	0.2	0.0	0.0	0.0	55	80	29	2.6	12	8.7	6.0	26
27	0.0	0.1	0.0	0.0	0.0	49	108	37	2.3	10	7.9	5.6	27
28	0.0	0.0	0.0	0.0	0.0	137	96	4.7	1.8	11	9.4	7.7	28
29	0.0	0.0	0.0	0.0	0.0	251	105	22	2.2	13	14	6.6	29
30	0.0	0.0	0.0	0.0*	92	111	53	2.5	14	13	13	5.3	30
31	0.0		0.0	361	65		39			14	9.4		31
MEAN	0.4	0.8	0.0	11.6	123	37.3	92.3	17.7	6.9	12.1	12.9	11.7	MEAN
MAX	2.8	6.1	0.0	361	1880 E	251	264	68.0	29.0	27.0	26.0	31.0	MAX
MIN.	0.0	0.0	0.0	0.0	0.0	0.0	23.0	4.4	1.0	6.4	7.9	5.3	MIN.
ACFT.	25	45		716	6833	2291	5492	1086	409	747	793	695	ACFT.

E - Estimated
NR - No Record
* - Discharge measurement or observation
of no flow made on this day.
- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE	DISCHARGE	ACRE-Feet
26.4	2650 E 12.08 2 1 0730	0.0	19130
		GAGE HT. NO DAY TIME	
		10 12 2210	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM TO	ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE					
37 24 59	121 00 45	SW 6 6S 9E	2650E	12.08	2- 1-63	DEC 57-DATE	Dec 57-DATE	1957	0.00	LOCAL

Station located 0.1 mi. below River Road Bridge, 3.7 mi. NE of Crows Landing. This includes drainage returned to San Joaquin River. Daily flows are estimated during periods of backwater from San Joaquin River. Altitude of gage is approximately 50 feet (from USGS topographic map).

TABLE B-28

DAILY MEAN DISCHARGE
MERCED RIVER AT CRESSEY
 IN SECOND FEET

STATION NO	WATER YEAR
805155	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	174	63	59	74	450	1530	906	991	3070	258	86	91	1
2	177	61	59	76	502	1320	916	923	3130	173	92	95	2
3	154	62	59	77	241	449	916	909	3270	187	95	92	3
4	134	62	55	78	162	255	922	895	3510	207	102	99	4
5	118	62	58	76	129	175	883	883	2440	218	114	97	5
6	109	61	60	78	97	170	914	735	2060	214 E	102	97	6
7	101	59	60	79	980	162	1090	520	2060	168 E	85	88	7
8	95	61	60	83	828	142	1080	1110	1590	128	66	85	8
9	96	62	73	82	1510	138	930	1810	1250	97	68	85	9
10	91	61	69	83 E	2270	151	822	4400	1820	90	79	84	10
11	93	62	63	83 E	1790	188	732	4150	796	91	94	86	11
12	89	60	62	84 E	1670	179	710	3700	445	83	100	76	12
13	89	58	62	83 E	2120	156	707	2890	354	81	76	95	13
14	88	59	61	84 E	2420	144	744	1770	304	82	71	94	14
15	86	60	62	83 E	1760	149	890	1590	261	89	72	105	15
16	86	59	94	84 E	1680	155	909	1520	256	90	82	101	16
17	81	56	122	83	1640	170	882	1950	2010	85	89	111	17
18	78	56	120	83	1630	164	827	3510	2950	85	102	111	18
19	75	56	107	83	1610	159	919	3850	2990	70	101	123	19
20	74	54	92	84	1600	148	992	4090	2570	93	88	145	20
21	72	55	86	83	1590	141	1180	4250	2370 E	101	82	148	21
22	69	55	83	84	1580	139	1060	4300	2060 E	107	85	136	22
23	68	61	82	82	1560	140	993	4420	1790 E	113	87	133	23
24	68	60	87	82	1540	130	1060	4410	1450 E	109	92	141	24
25	70	60	81	74	1540	122	1300	3790	1180 E	101	104	142	25
26	72	61	80	89	1540	120	1490	2970	731 E	100	104	141	26
27	71	64	79	100	1540	121	1550	3520	444 E	105	118	130	27
28	69	60	78	82	1540	158	1430	4160	508	94	97	126	28
29	95	59	79	76	750	1280	3750	593	593	93	78	126	29
30	64	58	81	75	1100	1110	3210	458	458	88	74	114	30
31	65		78	123		927	3060			90	78		31
MEAN	92.6	59.6	75.8	82.9	1340	321	1005	2711	1624	119	89.1	110	MEAN
MAX	177	64.0	122	123	2420	1530	1550	4420	3510	258	118	148	MAX
MIN.	64.0	54.0	55.0	74.0	97.0	120	707	520	256	70.0	66.0	76.0	MIN.
ACFT.	5695	3544	4663	5098	74420	19740	59790	166700	96640	7319	5480	6540	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

E - E and *

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE GAGE HT. MO. DAY TIME	DISCHARGE GAGE HT. MO. DAY TIME	ACRE-Feet
629	4590 19.56 5 10 1430	34.0 9.86 7 19 1740	455600

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. MO. & B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 25 28	120 39 47	SW 9 6S 12E	34400	22.67	12-4-50	JUL 41-DEC 41 JUL 42-DATE	APR 41-DATE	1950		96.24	USCGS

Station located 150 ft. below McSwain Bridge, immediately N of Cressey. Prior to May 20, 1960, station located 250 ft. upstream. Altitude of gage is approximately 85 ft. (USC & GS datum)

TABLE B-29

DAILY MEAN DISCHARGE
ORESTIMBA CREEK NEAR CROWS LANDING
 IN SECOND FEET

STATION NO	WATER YEAR
808720	1963

DAY	OCT.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	2.8	0.0*	0.0	0.0	1880 #	0.0	60	68	29	8.7	14	10	1
2	1.8	0.0	0.0	0.0	359 *	0.0	39	21	22	6.4	13	24	2
3	1.8	0.0	0.0*	0.0*	101	0.0	71	9.6	12	13	11	12	3
4	1.3	0.0	0.0	0.0	27 *	0.0	55	6.7	1.9	9.4	16	12	4
5	1.1	0.0	0.0	0.0	5.6	0.0	23	4.4	2.8	8.4	26	12	5
6	1.7	2.1	0.0	0.0	0.9	0.0*	26	5.2	1.9	11	12	23	6
7	0.7	0.1	0.0	0.0	0.0	0.0	284	16	1.4	15	11	29	7
8	0.4	0.0	0.0	0.0	0.0	0.0	158	6.3	2.1	27	12	31	8
9	0.4	0.0	0.0	0.0	0.0	0.0	96 *	11	4.0	25	9.7	18	9
10	0.3	6.1	0.0	0.0	57	12	67	6.4	10	8.5	9.9	8.9	10
11	0.1	2.2	0.0	0.0	40	21	65	5.7	24	6.5	8.2	6.5	11
12	0.2	0.2	0.0	0.0	15	1.2	104	6.8	20	11	11	11	12
13	0.1	0.0	0.0	0.0	399	2.3	109	8.0	25	18	13	20	13
14	0.1	3.5	0.0*	0.0	314 *	4.4	113	8.4	7.1	14	13	16	14
15	0.0	2.9*	0.0	0.0	127	3.3	73	6.6	2.4	7.6	18	9.2	15
16	0.0	0.7	0.0	0.0	62	41	76	8.4*	2.5	8.4	12	5.7	16
17	0.0	0.1	0.0*	0.0	31	85	101	12	2.6	8.2*	16	5.7	17
18	0.0*	0.0	0.0	0.0*	16	11	76	10	3.5	8.2	14	7.2*	18
19	0.0	0.0	0.0	0.0	6.8	1.7	74 *	8.5	2.2*	9.3	25	8.5	19
20	0.0	0.0	0.0	0.0	2.1	0.9*	88	8.5	1.0	13	16 *	7.8	20
21	0.0	0.0	0.0	0.0	1.5	13	141	9.5	1.9	13	12	8.8	21
22	0.0	0.0	0.0	0.0	0.0	49	123	13	2.5	13	12	8.1	22
23	0.0	0.8	0.0	0.0	0.0	101	128	6.5	3.0	13	11	6.4	23
24	0.0	3.0	0.0	0.0	0.0	55	84	12	5.1	15	12	11	24
25	0.0	0.7	0.0	0.0	0.0	104	55	42	4.8	12	9.7	7.4	25
26	0.0	0.2	0.0	0.0	0.0	55	80	29	2.6	12	8.7	6.0	26
27	0.0	0.1	0.0	0.0	0.0	49	108	37	2.3	10	7.9	5.6	27
28	0.0	0.0	0.0	0.0	0.0	137	96	47	1.8	11	9.4	7.7	28
29	0.0	0.0	0.0	0.0	0.0	251	105	22	2.2	13	14	6.6	29
30	0.0	0.0	0.0	0.0*	92	92	111	53	2.5	14	13	5.3	30
31	0.0		0.0	361	716	65		39		14	9.4		31
MEAN	0.4	0.8	0.0	11.6	123	37.3	92.3	17.7	6.9	12.1	12.9	11.7	MEAN
MAX	2.8	6.1	0.0	361	1880 E	251	264	68.0	29.0	27.0	26.0	31.0	MAX
MIN.	0.0	0.0	0.0	0.0	0.0	0.0	23.0	4.4	1.0	6.4	7.9	5.3	MIN.
ACFT	25	45			6833	2291	5492	1086	409	747	793	695	ACFT

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day.
 # - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
26.4	2650	E	12.08	2	1 0730	0.0		10	12	2210	19130

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 24 59	121 00 45	SW 8 6S 9E	2650E	12.08	2- 1-63	DEC 57-DATE	Dec 57-DATE	1957		0.00 LOCAL

Station located 0.1 mi. below River Road Bridge, 3.7 mi. NE of Crows Landing. This includes drainage returned to San Joaquin River. Daily flows are estimated during periods of backwater from San Joaquin River. Altitude of gage is approximately 50 feet (from USGS topographic map).

TABLE B-30

DAILY MEAN DISCHARGE
SAN JOAQUIN RIVER AT GRAYSON

STATION NO	WATER YEAR
807060	1963

IN SECOND FEET

OAY	OCT	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OAY
1	575	385	350	450	1580	2420	3040	3490	4370	1280	530	630	1
2	535	365	335	450	2070	2430	2590	3130	4260	1160	505	605	2
3	535	355	305	450	2750	2240	2310	2680	4210	1060	510	590	3
4	575	340	300	470	3430	1840	2260	2380	4170	1010	520	515	4
5	550	320	305	465	3770	1470	2120	2230	4030	1010	630	585	5
6	560	325	300	450	3890	1280	1940	2110	3690	995	665	585	6
7	525	325	295	445	3620	1160	2100	2000	3190	1010	585	630	7
8	540	335	295	480	2620	1060	2390	1790	2870	1090	575	650	8
9	475	340	275	585	2390	900	2680	1720	2700	990	600	680	9
10	455	340	250	650	2510	960	2870	1760	2510	890	635	710	10
11	485	345	250	660	3190	920	2930	2760	2500	785	685	610	11
12	510	350	275	665	3520	845	3260	3750	2680	775	685	565	12
13	570	365	305	660	3530	775	3360	4180	1970	735	625	635	13
14	560	365	330	635	4140	680	2710	4110	1540	715	630	690	14
15	570	370	310	630	4870	615	2660	3520	1380	710	610	715	15
16	650	365	325	625	4610	665	3300	2870	1360	655	560	890	16
17	540	365	330	600	4320	875	3170	2550	1310	660	520	945	17
18	445	365	365	565	4120	860	2700	2370	1370	655	510	925	18
19	400	360	465	525	3910	785	2810	2800	2420	590	515	960	19
20	375	355	525	505	3720	755	3010	3390	2840	575	505	980	20
21	345	355	525	490	3340	725	3300	3690	3280	600	465	905	21
22	340	355	585	490	3140	715	3360	3570	3370	665	515	1080	22
23	325	335	575	490	3010	825	3360	4040	3030	660	530	1100	23
24	340	320	540	475	2850	900	3400	4150	2550	560	540	1060	24
25	310	325	505	470	2700	915	3440	4190	2190	505	555	1010	25
26	320	330	490	460	2620	930	3570	4430	1890	500	565	990	26
27	340	335	460	455	2560	920	3670	4260	2000	480	530	755	27
28	370	330	450	445	2490	1030	3700	4040	1690	495	510	675	28
29	380	315	430	440	1220	1250	3550	4280	1250	530	590	700	29
30	380	330	415	460	2030	3510	4580	4580	1280	525	600	685	30
31	385		405	575	2680		4520			515	610		31
MEAN	460	346	383	523	3260	1175	2969	3275	2597	754	568	769	MEAN
MAX.	650	385	585	665	4870	2680	3700	4580	4370	1280	685	1100	MAX
MIN.	310	315	250	440	1580	615	1940	1720	1250	480	465	515	MIN
ACFT	28294	20559	23544	32162	181031	72248	176668	201402	154512	46383	34929	45729	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL ACRE-Feet
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	
1423	4950	34.10	2	15	1300						1017000

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 33 47	121 09 06	NW25 4S 7E	23900	45.15	3- 8-41	JUL 28-DATE	JUL 28-DATE	1960	1959	0.00	USED
								1960		0.00	USCGS
										3.81	USED

Station located at Laird Slough Bridge, 5 mi. above the Tuolumne River. High flows bypassing this station through old channel of San Joaquin River are included in figures shown.
Records furn. by City of San Francisco.

TABLE B-31

DAILY MEAN DISCHARGE
BURKHARDT DRAIN NEAR GRAYSON

STATION NO	WATER YEAR
B00935	1963

IN SECOND FEET													DAY
DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	6.0												1
2	11												2
3	12												3
4	17												4
5	8.7												5
6	8.2												6
7	7.2												7
8	5.3												8
9	4.0												9
10	3.2												10
11	4.7												11
12	4.7												12
13	5.8												13
14	3.4												14
15	4.1												15
16	3.0												16
17	3.7*												17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
MEAN													MEAN
MAX													MAX
MIN													MIN
ACFT													ACFT

STATION DISCONTINUED AS OF

10-17-62

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day.

± - E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO	DAY	TIME	DISCHARGE	GAGE HT.	MO	DAY	TIME	ACRE-Feet
											NR

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T & R M D.B.B.M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 30 53	121 12 20	SW 4 4S 7E	10SE	2.00	7/4/59	APR 57-SEP 62	APR 57-SEP 62	1959		0.00 1.00
										LOCAL

Station located 1.2 mi. E. of El Solvo Ranch, 2.6 mi. N. of Grayson. This includes flow of Hospital Creek and drainage returned to San Joaquin River. Record available during irrigation season only. Station discontinued 10-17-62.

TABLE B-32

DAILY MEAN DISCHARGE
TUOLUMNE RIVER AT LAGRANGE BRIDGE
 IN SECOND FEET

STATION NO	WATER YEAR
B04175	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	60	587	1040	470	2750	587	1090 *	1830	4650 E	1660 E	23	16	1
2	53	575	812	1200	6850 *	511	1020	1360	4700 E	259	22	12	2
3	13	564	1340	1060	6870	506	876	1330	4380	163	22	11	3
4	12	448	1390	669	6900	698	349	1340	2650 E	131	22	20	4
5	11	488	1610	479	6730	674	7.9	1230	1300	136	20	5.2	5
6	11	606	1800	378	5930	536	101	954	1290	540	19	6.8	6
7	10	595	1760	793	2520	544	393	1300	823	20	7	5.0	7
8	11	407	1270	760	3150	547	3640	346	1890	454	19	8.0	8
9	23	630	1060	591	3420	526	3400	347	2440	1290	17	12	9
10	380	604	1800	791	3190	379	4750	772	3170 E	751	16	2.9	10
11	602	582	1510	814	2230	470	5510	2210	4680 E	1220	20	8.2	11
12	611	635	1400	491	1810	82	3540 *	1510	628 *	924	19	16	12
13	592	695	1130	481	4210	27	1630	844	305	319	18	15	13
14	501	655	1020	480	4580	23	3570	1710	1050	353	18	14	14
15	419	702 *	796	501	2110	18	5760	2590	1290	285 *	19	13	15
16	371	642	522	572	1730	18	2140	2150	703	300	19	13	16
17	562	622	1280	579 *	1690	17	1210	1560 *	297	72	18	11 *	17
18	550	593	1270	589	2940	16	2400	1420	712	36	18	12	18
19	567	721	1230 *	538	2460	12	3240	1450	3340 E	34	30	15	19
20	563	639	1500	430	1970	12	3230	1230	5390 E	31	15	16	20
21	429	644	1640	484	2160	13 *	2770	1120	5070 E	29	14 *	19	21
22	423 *	593	1250	573	1980	16	2780	1130	2200	28	14	10	22
23	601	985	913	466	1380	9.4	2680	1550	2050	28	14	27	23
24	579 *	952	1120	582	991	11	2690	2500	820	25	48	29	24
25	610	699	707	575	1440	11	2750	3070	445	25	9.4	28	25
26	613	1390	1330	550	1700	12	2890	3100	341	24	6.5	28	26
27	613	1370	950	313	1460	276	1710	3490	325	25	7.5	25	27
28	576	1500	968	447	1010	3530	1120	4330	834	23	16	24	28
29	558	1680	844	581		5640	3180	4710	1310	22	12	15	29
30	615	1590	446	512		4930	2720	4690	1170	22	12	12	30
31	617		739	473		4960		4670		22	12		31
MEAN	399	786	1176	588	3077	826	2469	1965	2024	324	18.0	15.3	MEAN
MAX	617	1680	1800	1200	6900	5640	5760	4710	5390 E	1660 E	48.0	29.0	MAX
MIN	10.0	448	446	313	991	9.4	7.9	346	297	22.0	6.5	2.9	MIN
ACFT	24510	46800	72330	36160	170900	50800	146900	120800	120500	19940	1110	910	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MD	DAY TIME	DISCHARGE	GAGE HT	MD	DAY TIME	ACRE- FEET
1121	7190	75.28	2	3 1030	0.0		3	15 2030	811700

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T.B.R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 39 59	120 27 40	NW20 3S 14E	48200	188.0	12-8-50	OCT 36-SEP 60 OCT 61-DATE	OCT 36-SEP 60 OCT 61-DATE	1937		0.00	USGS

Station located at highway bridge, immediately N of La Grange. Flow regulated by reservoirs and power plants. Drainage area is 1,540 sq. mi. Altitude of gage is approximately 175 feet (from USGS topographic map.)

TABLE B-33

DAILY MEAN DISCHARGE
TUOLUMNE RIVER AT ROBERTS FERRY BRIDGE
 IN SECOND FEET

STATION NO.	WATER YEAR
804165	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	37	659	1630	859	1830	826	1730	2070	4140	1260	43	44	1
2	60	649	1330	1290	6880	733	1190	1470	4180	842	43	46	2
3	79	647	1500	1530	7150	672	1020	1420	4060	200	37	40	3
4	49	580	1880	1170	7020	696	764	1410	2860	151	37	40	4
5	39	475	2080	939	6990	907	88	1320	1340	144	43	44	5
6	40	642	2410	811	6630	819	59	1040	1300	275	41	46	6
7	39	642	2430	889	2620	700	940	416	1290	1060	39	40	7
8	34	643	1880	1220	3500	707	3130	408	1600	305	40	39	8
9	35	670	1600	1010	3760	701	3540	396	2220	1220	43	40	9
10	143	681	2090	1090	3630	560	4350	383	2380	1030	44	37	10
11	586	656	2150	1280	2790	555	5430	1950	4500	1050	47	40	11
12	723	643	1910	966	1950	334	4370	1690	1250	1080	46	43	12
13	679	731	1690	806	3350	101	1590	1030	339	572	39	46	13
14	618	793	1500	601	5210	72	2660	1230	805	429	40	54	14
15	496	790	1200	620	2580	65	5770	2270	1250	346	47	54	15
16	625	747	1040	731	2030	65	3030	2130	953	359	46	49	16
17	627	744	1370	724	2040	62	1300	1590	318	217	43	44	17
18	614	705	1800	746	2500	60	2420	1370	451	79	45	48	18
19	637	740	1720	737	3210	56	2830	1400	2200	51	46	55	19
20	643	756	1980	611	1980	53	3250	1280	4820	45	47	56	20
21	518	744	2160	566	2180	52	3110	1140	4810	42	42	58	21
22	455	736	1880	733	2100	53	2660	1140	2520	44	48	62	22
23	661	896	1470	605	1690	57	2720	1160	1930	42	50	61	23
24	631	1430	1530	717	1230	54	2700	2370	1190	45	48	58	24
25	651	1180	1270	733	1430	53	2750	2550	501	46	91	68	25
26	678	1540	1440	716	1830	54	2860	2810	452	46	52	73	26
27	671	1860	1590	428	1630	154	2300	3040	359	43	39	76	27
28	650	1950	1360	523	1440	2120	1310	3650	597	43	40	75	28
29	621	2270	1240	721	4780	5150	2430	4210	1290	42	44	76	29
30	674	2240	1050	721	4780	3130	4180	1220	40	47	72	30	30
31	685		949	631		4970	4170		40	44			31
MEAN	442	948	1649	830	3257	847	2514	1829	1904	361	45.2	52.9	MEAN
MAX.	723	2270	2430	1530	7150	5150	5770	4210	4820	1260	91.0	76.0	MAX
MIN.	34.0	475	949	428	1230	52.0	59.0	383	318	40.0	37.0	37.0	MIN
ACFT.	27170	56410	101400	51020	180900	52050	149600	112400	113300	22190	2779	3146	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

E - E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
1205	7320	16.04	2	2	2400	29.0	8.24	10	2	0640	872400

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 38 08	120 37 03	NW35 3S 12E	49800	128.2	12- 8-50	JUL 28-OCT 36 JAN 37-FEB 38 JUN 38-DATE	JUL 28-OCT 36 JAN 37-FEB 38 JUN 38-DATE	1930	1940	106.20	USCGS
										0.00	USCGS

Station located at highway bridge, 7.5 mi. E of Waterford. Flow regulated by reservoirs and power plants.
 Altitude of gage is approximately 110 feet (from USGS topographic map.)

TABLE B-34

DAILY MEAN DISCHARGE
TUOLUMNE RIVER AT HICKMAN BRIDGE

STATION NO	WATER YEAR
804150	1963

IN SECOND FEET

DAY	OCT	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	98	618	1580	879	1500	833	2360	2270	4270	1210	103	107	1
2	93	619	1230	949	6270	722	1360	1610	4300	1140	105	109	2
3	118	612	1230	1480	6840	648	1190	1580	4180	288	102	101	3
4	100	567	1660	1130	6730	603	1030	1510	3230	231	101	94	4
5	93	469	1720	866	6680	908	253	1440	1480	217	106	91	5
6	89	631	1990	717	6550	816	192	1240	1370	233	106	98	6
7	89	640	2120	715	2850	693	883	532	1360	1010	97	96	7
8	87	641	1800	1050	3310	706	3020	494	1530	425	92	86	8
9	86	648	1470	924	3610	708	3840	482	2300	1060	97	89	9
10	88	654	1610	885	3600	611	4410	436	2320	1160	105	84	10
11	419	639	1920	1100	2930	544	5660	1790	4420	949	107	88	11
12	639	619	1650	920	1920	481	5070	1950	1840	1070	108	92	12
13	625	692	1560	743	2740	182	1850	1180	436	659	102	100	13
14	629	769	1430	563	5350	154	2520	1140	742	462	100	103	14
15	497	757	1120	574	2670	124	5940	2370	1330	386	108	104	15
16	585	745	1020	644	1990	124	3750	2350	1160	385	111	96	16
17	594	701	1020	660	2040	121	1460	1760	414	315	110	92	17
18	585	671	1620	675	2140	121	2410	1470	417	173	112	92	18
19	599	689	1480	697	3450	118	2700	1500	1910	131	113	102	19
20	597	744	1610	584	1930	120	3440	1400	4640	117	104	102	20
21	502	718	1780	526	2130	118	3470	1210	4820	109	105	102	21
22	433	711	1670	677	2120	116	2740	1210	2950	107	110	106	22
23	611	705	1360	575	1710	113	2890	1180	2040	103	111	99	23
24	613	1320	1280	660	1220	107	2830	2380	1450	101	112	94	24
25	619	1120	1250	676	1260	102	2860	2530	593	109	141	94	25
26	639	1210	1100	679	1770	95	2940	2920	557	108	128	101	26
27	631	1620	1490	486	1600	95	2640	3060	429	106	105	103	27
28	611	1680	1170	470	1510	1860	1460	3630	523	101	99	95	28
29	583	1910	1150	687		5340	2190	4280	1320	104	103	94	29
30	638	1930	1040	708		5170	3410	4270	1300	102	106	92	30
31	650		793	626		5020		4270		91	104		31
MEAN	427	868	1449	759	3158	886	2692	1918	1988	412	107	96.9	MEAN
MAX	650	1930	2120	1480	6840	5340	5940	4280	4820	1210	141	109	MAX
MIN.	86.0	469	793	470	1220	95.0	192	436	414	91.0	92.0	84.0	MIN.
ACFT.	26260	51670	89100	46660	175400	54490	160200	117900	118300	25310	6571	5764	ACFT.

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

† - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
1212	6970	79.38	2	2	1950	17.0	71.31	3	26	1930	877600

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T & R M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 38 10	120 45 14	NW34 3S 11E	59000	96.2	12- 8-50	JUL 32-OCT 36	JUL-32-OCT 36	1932		0.00	USCGS
						JAN 37-MAR 37	JAN 37-MAR 37				
						JUL 37-FEB 38	JUL 37-FEB 38				
						JUL 38-DEC 38	JUL 38-DEC 38				
						MAR 39-DATE	MAR 39-DATE				

Station located at Hickman-Waterford Road Bridge, immediately SE of Waterford. Flow regulated by reservoirs and power plants. Altitude of gage is approximately 80 feet. USCGS Datum

TABLE D-35

DAILY MEAN DISCHARGE
DRY CREEK NEAR MODESTO

STATION NO.	WATER YEAR
804130	1963

IN SECOND FEET													
OAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OAY
1	48	23	15	11	465 *	25	68	53	77	131	65	70	1
2	45	24	14	11	1160 *	22	53	46	102	120	59	67	2
3	47	22	14	12	209	23	46	54	125	100	61	65	3
4	58	21	14	12	92	23	41	56	120	115	62	65	4
5	66	20	13	11	58	22	36	46	114	122	64	74	5
6	65	19	13	11	40	21	34	50	109	82	70	77	6
7	68	18	13	11	30	18	39	50	115	79	67	74	7
8	68	17	13	11	24	16	337	43	96	83	69	77	8
9	60	18	12	11	23	21	193	55	79	76	68	77	9
10	62	17	12	11	386	19	147	65	86	87	70	73	10
11	63	19	12	11	704	20	116	65	86	79	64	67	11
12	68	18	12	10	145	19	102	75	79	74	70	73	12
13	116	17	12	9.6	392	20	92	74	75	74	60	74	13
14	113	16	12	9.6	1620 *	20	88	71	76	73	59	72	14
15	102	17	13	9.8	341	19	336	74	83	93	58	80	15
16	94	18	21	9.6	141	19	371	77	104	91	63	79	16
17	45	16	39	9.4*	98	22	162	77	93	82	59	82	17
18	35	16	43	9.3	78	23	113	91	95	79	59	94	18
19	30	16	27	9.3	66	20	85	80	95	79	55	94	19
20	24	16	20	9.6	55	19	593	71	78	75	55	81	20
21	21	16	17	11	48	18	372	71	73	79	56	78	21
22	19	15	15	11	43	20	355	72	77	80	62	77	22
23	18	14	13	11	38	37	181	93	94	75	55	75	23
24	19	13	13	9.6	35	31	135	81	124	68	53	75	24
25	19	13	12	9.5	32	23	115	73	134	63	58	77	25
26	20	13	12	9.3	29	21	105	101	128	63	63	73	26
27	22	14	12	9.3	28	23	118	94	124	67	72	62	27
28	23	14	12	10	26	34	135	89	123	70	72	60	28
29	23	15	12	12		230	103	90	119	73	67	64	29
30	21	15	11	12		155	65	87	120	70	66	67	30
31	18	12	13			94		79		62	64		31
MEAN	48.4	17.0	15.6	10.5	229	35.5	159	71.1	100	82.7	62.7	74.1	MEAN
MAX	116	24.0	43.0	13.0	1620	230	593	101	134	131	72.0	94.0	MAX
MIN	18.0	13.0	11.0	9.3	23.0	18.0	34.0	43.0	73.0	62.0	53.0	60.0	MIN
ACFT	2975	1012	962	648	12710	2180	9433	4370	5956	5086	3858	4609	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

E - E and *

MEAN	MAXIMUM					MINIMUM				
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME
74.0	2130	79.74	2	14	0750	6.8	67.66	2	1	0000

TOTAL
ACRE FEET
53600

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 39 26	120 55 19	SE24 3S 9E	7710	88.04	12-23-55	MAR 41-DATE	MAR 41-DATE	1941		USCGS

Station located 0.1 mi. below Claus Road Bridge, 4 mi. E of Modesto. Tributary to Tuolumne River. Prior to Mar. 1941, records available for a site 2.5 mi. downstream. This is a Department of Water Resources-Modesto Irrigation District Cooperative station. Altitude of gage is approximately 80 feet. USC & GS datum.

TABLE B-36

DAILY MEAN DISCHARGE

TUOLUMNE RIVER AT TUOLUMNE CITY

IN SECOND FEET

STATION NO.	WATER YEAR
804105	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	365	885	1870	1040	785	NR	3700	2760	3840	1350	430	405	1
2	345	875	2370	1040	2510	NR	2030	2200	3810	1410	425	400	2
3	355	860	2630	1180	4870	NR	1570	1780	3810	1080	415	385	3
4	360	845	2600	1140	5140	NR	1400	1690	3680	735	415	385	4
5	375	810	2340	1340	5210	NR	1180	1640	2830	715	410	370	5
6	380	725	2230	1040	5230	NR	1130	1550	1970	640	405	385	6
7	380	800	2340	925	4740	NR	720	1330	1740	660	410	395	7
8	385	860	2000	950	2780	NR	1590	990	1630	1040	410	385	8
9	370	870	1770	985	2900	NR	2880	935	1800	755	425	400	9
10	360	875	1550	745	3130	NR	3160	930	2120	1126	425	385	10
11	365	875	1740	1080	3570	NR	3740	1030	2440	1100	425	375	11
12	505	865	1860	1090	2820	NR	4350	2060	3150	1100	425	375	12
13	915	850	1720	1060	2370	NR	3600	2240	1560	1110	405	385	13
14	1080	885	1610	895	4070	NR	2300	1910	960	850	405	415	14
15	1060	930	1500	760	4620	NR	2900	1830	1130	780	405	405	15
16	1010	945	1430	740	3110	NR	4550	2200	1410	720	415	410	16
17	935	950	1250	780	2590	NR	3010	2040	1230	675	390	390	17
18	915	915	1300	790	2430	NR	1970	1710	885	655	390	385	18
19	885	885	1610	795	2770	NR	2380	1610	960	590	390	405	19
20	875	890	1580	795	2680	405	2880	1690	2190	505	385	410	20
21	875	940	1660	730	2190	400	3340	1690	3510	485	385	420	21
22	810	925	1790	690	2180	405	3100	1690	3580	475	390	420	22
23	720	915	1680	775	2070	410	2860	1780	2450	475	400	405	23
24	760	950	1450	720	1750	420	2800	1960	2060	455	405	385	24
25	850	1330	1420	750	1460	410	2760	2510	1510	435	415	395	25
26	860	1250	1320	775	1560	395	2400	2810	1070	435	425	395	26
27	885	1400	1350	775	NR	390	2880	2840	990	435	425	385	27
28	890	1600	1450	660	NR	475	2500	3000	895	435	395	390	28
29	870	1720	1340	630	NR	565	1960	3410	1000	450	400	390	29
30	840	1880	1270	765	NR	3860	2610	3820	1370	445	410	385	30
31	860	NR	1140	825	NR	3810	NR	3860	NR	435	405	NR	31
MEAN	692	1010	1715	880	NR	NR	2608	2048	2053	726	408	394	MEAN
MAX	1080	1880	2630	1340	NR	NR	4550	3860	3840	1410	430	420	MAX
MIN	345	725	1140	630	NR	NR	720	930	885	435	385	370	MIN
ACFT	42526	60109	105461	54079	NR	NR	155207	125207	122142	44648	25111	23445	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
	5480	36.15	2	14	2350						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M. O. B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD	ZERO ON GAGE	REF DATUM	
			C.F.S.	GAGE HT.	DATE						
37 36 12	121 07 50	NW 7 4S 6E				30-DATE	30-DATE	1960	1959	0.00	USED
								1960		0.00	USCGS
										3.50	USED

Station located at highway bridge, 3.35 mi. above mouth. Backwater at times affects the stage-discharge relationship. Records furnished by City of San Francisco.

TABLE B-37

DAILY MEAN DISCHARGE

SAN JOAQUIN RIVER AT HETCH HETCHY AQUEDUCT CROSSING

STATION NO	WATER YEAR
807060	1963

IN SECOND FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	920	1120	1790	1450	1650	3520	7170	6720	10800	2400	725	860	1
2	890	1110	1720	1490	3620	3100	5480	4660	10500	2200	710	865	2
3	880	1090	1510	1430	7180	2860	4050	4610	9780	2060	700	865	3
4	925	1090	1520	1730	10300	2550	3670	4410	9290	1580	720	830	4
5	955	1060	1590	1680	10500	2100	3370	4540	7750	1510	780	850	5
6	955	1010	1670	1480	10500	1990	2680	4310	6040	1400	770	865	6
7	965	1000	1790	1350	9800	1850	2590	4100	5960	1360	755	920	7
8	955	1060	1870	1300	6590	1690	3970	3920	4280	1700	750	960	8
9	815	1080	1800	1530	5620	1620	6010	4070	4280	1600	760	960	9
10	805	1090	1590	1600	5720	1540	7390	4390	4560	1610	810	980	10
11	820	1100	1590	1540	6900	1440	7380	5220	4660	1740	895	865	11
12	910	1100	1780	1860	7890	1300	9170	7740	5020	1570	920	885	12
13	1210	1090	1720	1620	6930	1230	10000	9250	4590	1620	845	890	13
14	1360	1100	1700	1450	8270	980	7590	8610	2430	1430	800	1000	14
15	1360	1130	1590	1920	11100	860	5980	6920	2140	1330	800	1030	15
16	1380	1150	1560	1290	9450	905	8320	5660	2700	1230	890	1170	16
17	1300	1160	1470	1290	8020	1130	8320	4810	3100	1220	770	1340	17
18	1180	1150	1390	1290	7400	1070	6050	4070	2620	1120	780	1320	18
19	1120	1130	1670	1260	7140	1130	5490	4240	3480	1030	765	1360	19
20	1090	1120	1760	1250	7250	990	5940	5600	4120	920	755	1360	20
21	1060	1160	1830	1210	5890	940	7230	6600	6430	920	700	1380	21
22	1040	1150	1900	1150	5250	900	8000	6000	7470	920	725	1450	22
23	975	1110	1830	1190	4970	980	7890	7740	5830	880	890	1510	23
24	950	1110	1790	1190	5460	1070	7880	8230	4670	770	800	1450	24
25	1020	1300	1650	1170	4020	1140	7470	9220	3730	730	835	1430	25
26	1060	1370	1630	1190	3840	1120	7380	9710	2690	725	895	1390	26
27	1080	1350	1500	1190	3900	1080	7810	10100	2020	730	820	1160	27
28	1110	1560	1640	1140	3710	1220	7410	9670	1940	765	745	995	28
29	1120	1620	1530	1050		2110	6120	10400	1770	745	770	990	29
30	1110	1720	1520	1150		5570	6120	10600	2250	715	890	1000	30
31	1100		1460	1280		6750		11000		730	825		31
MEAN	1046	1181	1655	1359	6747	1795	6464	6675	4930	1266	793	1098	MEAN
MAX.	1380	1720	1900	1920	11100	6750	10000	11000	10800	2400	920	1510	MAX
MIN.	805	1000	1390	1050	1650	820	2590	3920	1770	715	700	830	MIN
ACFT.	64304	70295	101792	83544	374717	110370	384655	410420	293355	77871	48783	65316	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

H - E and *

MEAN

DISCHARGE
2917

MAXIMUM

DISCHARGE 12250 GAGE HT 27.94 NO DAY TIME 2 4 1900

MINIMUM

DISCHARGE GAGE HT NO DAY TIME

TOTAL

ACRE FEET
2085000

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 38 10	121 12 54	NE32 3S 7E	38400	38.43	4- 2-40	MAR 33-DATE	MAR 33-DATE	1960	1959	0.00	USED
								1960		0.00	USCGS
										3.51	USED

Station located 2.9 mi. above the mouth of the Stanislaus River. Records furnished by City of San Francisco.

TABLE B-38

DAILY MEAN DISCHARGE

STANISLAUS RIVER AT ORANGE BLOSSOM BRIDGE

IN SECOND FEET

STATION NO	WATER YEAR
803175	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	32	172	77	108	3790	29	1680	1060	3580	113	31	38	1
2	28	86	75	104	9270 *	28	1440	1340	2860	59	30	36	2
3	29	161	75	100	4300	28	1430	2710	2180	49	29	33	3
4	31	168	75	100	3080	26	1100	2950	1180	48	33	35	4
5	36	171	75	100	2740	25	134	3150	831	47	29	44	5
6	34	171	76	100	1790 *	179	1240	3640	298	47	32	40	6
7	30	167	79	98	1740	90	4050	5090	858	46	30	43	7
8	29	143	77	97	1900	31	4390	5210	1530	43	31	48	8
9	28	139	80	100	1860	25	3460 *	6290	1560	38	35	43	9
10	28	129	82	102	3780	130	2930	7130 *	1820	37	34	45	10
11	32	127	87	98	3310	571	7740 *	6880	2250 *	33	32	71	11
12	37	142	85	94	2830	502	6440	5730	2020	33	29	76	12
13	145	139	86	87	2740	464	2520	3930	1030	33	28	76	13
14	139	147	84	86	2620	388	2160	2750	982	30	31	73	14
15	122	178 *	100	68	2540	326	2930	1770	2820	30	34	73	15
16	119	172	135	60 *	2510	890	3880	1170	3070	31 *	37	71 *	16
17	83 *	157	128	58	2450	1520	2970	1300	3390	30	34	74	17
18	95	173	296 *	59	2090	492 *	1920	2900	3800	31	31	98	18
19	105	177	483	60	1630	76	1990	5200	1970	32	33 *	94	19
20	96	193	473	51	1390	39	2800	5620	2100	33	31	89	20
21	71	173	444	49	919	36	4380	6080	2140	30	34	88	21
22	73	170	476	43	922	37	4250	6120	1750	30	34	91	22
23	146	174	484	38	923	361	3650	6120	311	29	33	97	23
24	148	175	405	31	921	1000	2780	6070	181	29	33	95	24
25	157	175	125	30	678	411	2760	6030	174	34	36	98	25
26	164	177	107	29	76	60	2750	5370	111	31	38	98	26
27	160	159	108	29	40	36	2350	4500	109	32	35	99	27
28	158	106	455	29	31	3800	1780	4650	384	31	32	98	28
29	152	88	467	30	2730 *	1580	5100	525	30	36	36	96	29
30	154	78	495	33	1830	1200	4920	399	33	34	34	94	30
31	158		382	60	1730		4630			28	36		31
MEAN	90.9	153	219	68.7	2245	577	2823	4368	1540	38.1	32.7	71.8	MEAN
MAX	164	193	567	108	9270	3800	7740	7130	3800	113	38.0	99.0	MAX
MIN	28.0	78.0	75.0	29.0	31.0	25.0	134	106.0	109	28.0	28.0	33.0	MIN
AC.FT.	5591	9098	13440	4227	124700	35480	168000	268600	91660	2340	2013	4272	AC.FT.

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL	
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-Feet	
1007	11100	15.69	2	2	0800	22.0	1.3	3	10	1810	729400	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 47 18	120 45 41	SW 4 25 11E	52000	30.05	11-21-50	JUN 28-DEC 39 APR 40-DATE	JUN 28-DEC 39 APR 40-DATE			0.00 LOCAL

Station located at bridge, 5.0 mi. E of Oakdale. Flow regulated by reservoirs and power plants.
Drainage area, 1,020 sq. mi. Altitude of gage is approximately 70 feet (from U.S.G.S. topographic map).

TABLE B-39

DAILY MEAN DISCHARGE
STANISLAUS RIVER AT RIVERBANK
 IN SECOND FEET

STATION NO.	WATER YEAR
803145	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	85	167	124	264	972	116	1780	1080	4160	299	86	99	1
2	88	175	121	157	9030 *	107	1540	882	3060	180	84	106	2
3	88	136	121	148	5510	101	1480	2540	2800	143	86	97	3
4	88	174	121	142	3050	97	1430	2750	1520	141	86	95	4
5	87	184	123	141	2950	93	529	3130	1320	128	90	98	5
6	94	186	123	136	2040 *	91	267	3130	605	124	83	104	6
7	91	188	124	135	1610	223	4010	4820	636	119	82	104	7
8	88	183	125	132	1900	115	3790	5180	1590	121	82	110	8
9	87	170	122	132	1780	96	4730	5750	1650	117	84	113	9
10	91	168	126	136	3260	87	2280	7330 *	1850	114	90	108	10
11	93	159	127	134	3320	358	6340 *	7380	2180 *	109 E	89	113	11
12	115	161	128	130	3060	469	7340	6560	2390	104 E	82	136	12
13	161	168	129	125	2680	445	3340	4720	1300	100 E	76	147	13
14	194	169	129	122	2760	392	2030	3160	626	96 E	77	152	14
15	186	178	132	115	2530	312	2370	2230	2500	92 E	79	142	15
16	161	196	171	103	2480	378	3790	1480	3300	93 #	81	140 *	16
17	143 *	196	191	99	2450	1490	3360	1320	2860	94	82	142	17
18	123	188	173 *	97	2250	771	1860	2230	4260	96	85	148	18
19	129	199	452	96	1700	294 *	1840	4880	2170	100	84 *	165	19
20	132	206	565	94	1580	139	2130	5520	2170	96	82	161	20
21	124	210	472	88	901	112	4090	6140	2210	97	82	163	21
22	109	204	509	86	873	116	4160	6270	2050	89	83	161	22
23	116	202	520	80	854	131	3910	6290	745	88	83	164	23
24	153	201	529	76	847	939	2790	6260	322	85	82	167	24
25	161	204	273	73	816	555	2690	6210	300	82	91	163	25
26	165	202	169	70	318	260	2680	5920	246	88	95	159	26
27	169	209	151	69	167	135	2530	4870	195	83	97	162	27
28	168	189	212	66	130	2000	1730	4610	289	86	95	162	28
29	167	149	604	68		3780 *	1620	5210	544	85	91	166	29
30	164	133	568	71		2000	1190	5100	547	82	93	165	30
31	165		526	78		1790		4950		85	94		31
MEAN	129	182	257	112	2208	580	2788	4449	1680	110	85.8	137	MEAN
MAX	194	210	604	264	9030	3780	7340	7380	4260	299	97.0	167	MAX
MIN	85.0	133	121	68.0	130	87.0	267	882	195	82.0	77.0	95.0	MIN
AC.FT.	7904	10820	15790	6877	122600	35690	165900	273500	99960	6776	5276	8156	AC.FT.

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO DAY TIME
1048	10100	88.73	2 2 1340
		DISCHARGE	GAGE HT
		67.0	73.0
		1	29 1500
			759200

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. MO. B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
34 44 31	120 56 21	SW24 2S 9E	85800	103.18	12-23-55	JUL 40-DATE	JUL 40-DATE	1940		0.00	USCGS

Station located at Burneyville Bridge, immediately N of Riverbank. Drainage area 1,055 sq. mi.

TABLE B-40

DAILY MEAN DISCHARGE
STANISLAUS RIVER AT KOETITZ RANCH

STATION NO	WATER YEAR
803115	1963

DAY	IN SECOND FEET												DAY
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	
1	263	245	205	665	149	363	2120 E	1760	5170	691 E	209	258	1
2	236	246	195	470	1970	324	1840 E	1570	4380	500 E	210	270	2
3	220	246	187	367	5240	295	1710	1830 E	3560	428 E	242	239	3
4	211	225	183	327	5170 *	272	1680	2540 E	2700	403 E	258	216	4
5	210	243	182	306	3490 *	253	1410	2900 E	1890	436 E	283	234	5
6	220	253	181	299	2860	243	809	3070 E	1490	409 E	241	233	6
7	240	256	181	291	2100	246	1690	3530 E	1050	385 E	215	262	7
8	213	257	181	285	1980	312	3590	4410 E	1360	368 E	222	282	8
9	199	254	180	279	2030	250	4120 *	5050 E	1780	348 E	216	305	9
10	207	244	178	277	2240	226	3820	5740 E	1840	332 E	219	254	10
11	233	239	179	277	3400	218	3340	6410	2000	298 E	219	262	11
12	311	233	180	275	3300	443	5190 *	6750	2300	276 E	233	286	12
13	331	232	179	272	3000 *	526	5840 *	6640	2080	279 E	216	340	13
14	358	234	179	269	3030	516	3610	5850 E	1310	288 E	202	387	14
15	383	234	181	265	2810	466	2510	4300 E	1430	288 E	208	338	15
16	377	239 *	196	259 *	2630	415	3050	2780 E	2650	257 #	219	305 *	16
17	315	254	238	246	2570	706	3690	2000 E	2840	284	203	294	17
18	254	257	254	239	2490	1280	3070	2300 E	3240	300	204	298	18
19	229	250	239	235	2200	749 *	2310	3720 E	3360	289	219	299	19
20	222	256	400	233	1890	451	2280	4860 #	2240	273	210 *	318	20
21	219	263	509	230	1580	334	3060	5570	2250	281	196	339	21
22	213	265	494	224	1210	280	4130	6010	2300	262	202	336	22
23	205	262	526	218	1140	265	4310	6220	1880	252	239	376	23
24	205	256	538	212	1100	367	3940	6240	969	226	215	324	24
25	227	255	523	208	1080	895	3220	6210	758	213	239	304	25
26	236	258	369	202	931	624	3120	6170	669	199	233	297	26
27	242	262	282 *	199	559	418	3120	6000	568	200	230	304	27
28	246	263	247	197	427	426	2710	5450	489	236	225	312	28
29	248	249	309	194		2420 E	2320	5130	606	233	220	316	29
30	249	222	551	194		2400 E	2080	5320	759	235	233	343	30
31	246		574	198		2250 E		5340		222	226		31
MEAN	251	248	290	271	2233	620	2990	4570 E	1997	313	223	298	MEAN
MAX	383	265	574	665	5240	2420	5840	6750	5170	691	283	387	MAX
MIN	199	222	178	194	149	218	809	1570	489	199	196	216	MIN
ACFT.	15410	14780	17850	16690	124000	38150	177900	281000E	118800	19220	13700	17710	ACFT.

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day
 # - E and *

WATER YEAR SUMMARY

MEAN		MAXIMUM					MINIMUM					TOTAL	
DISCHARGE		DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-Feet	
1192		6800	45.71	5	12	1810	138	27.60	2	1	0000	855,210	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T.B.R M.D.B.B.M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO		
37 41 57	121 10 08	SW 2 35 7E					MAR 50-DATE		1950	1951	0.00	USED
									1951		0.00	USCGS
											3.60	USED

Station located 0.6 mi. NW of Bacon and Gates Road Junction, 3.7 mi. SW of Ripon.

TABLE B-41

DAILY MEAN DISCHARGE
SAN JOAQUIN RIVER NEAR VERNALIS
 IN SECOND FEET

STATION NO.	WATER YEAR
807020	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	1160	1570	2520	2190	1920	4390	8730	8380	13000	3490	1020 E	1140	1
2	1190	1570	2480	2180 *	3830	3950	7720	7540	12500	3130 *	1020 E	1200	2
3	1200	1570	2160	1940	9220	3620	6120 *	6500	11600	2970	1000 E	1210	3
4	1220	1570	1970 *	2270	12100 *	3300	5610	6750	10800	2370	1020 E	1200	4
5	1260	1550	2180	2270	12000	2720 *	5190	6840	9410	2240	1100 E	1200	5
6	1260	1470	2310	2000	11700 *	2620	4120	6930	7810	2130	1120 E	1200	6
7	1330	1400	2480	1720 E	11000	2450	3870	6800 *	6430	2020	1080 E	1190	7
8	1300	1420	2620	1670 E	8700	2290	6260	6910	5810	2360	1080 E	1220	8
9	1140	1450	2570	1960	7500 E	2180	8360	7190	6050	2350	1080 E	1270	9
10	1050	1470	2290	2090	7700 F	2060	9860	7720	6370 *	2210	1120 E	1270 *	10
11	1110	1480	2120	2000	9100 E	1930 F	9440	8650	6540	2410	1220 E	1280	11
12	1260	1490	2480	2090	9700 E	1750 F	11200	10900	7780	2180	1280 E	1240	12
13	1650	1500 *	2450	2130	8700 F	1860 F	12500	12200	7000	2210	1150 E	1260	13
14	1940	1510	2430	1910	9700 *	1610 E	10700	11600	4550	2050	1100 E	1340	14
15	2070	1540	2290	1690 E	11900	1460	8350	9790	3540	1900	1050 E	1450 E	15
16	2100	1570	2240	1630 E	11200	1450	9810 *	8150	4760	1760 E	1080 E	1630 E	16
17	1970	1600	2130	1630 E	9970	1790	10600	6910	5510	1640 E	1080 E	1780	17
18	1760	1600	1980	1640 E	9280	2440	8940	6050	4940	1580 E	1100 E	1780	18
19	1630	1590	2360	1590 E	8660 *	2150	7810	6490	6060	1460 E	1100	1800	19
20	1550	1550	2590	1590 E	8650	1780 E	7970	8310	6410	1350 E	1100 *	1800	20
21	1520	1580	2790	1530 E	7550	1570	9100	9490	8080	1320 E	1080	1840	21
22	1480	1590	3010	1470 E	6690	1420	10300	10200	9010	1350 E	1060	1920	22
23	1370	1610	3110	1470 E	6350	1450	10400	10900	8330	1300 E	1060	2060	23
24	1300	1580	2890	1500 E	5950	1560	10400	11200	6350	1200 E	1090	1980	24
25	1320	1720	2670	1470 E	5420	1910 E	9840	11900	5070	1080 E	1120	1920	25
26	1380	1930	2590	1500 E	5100	1930 *	9600	12500	3910	1080 E	1180	1860	26
27	1430	1890	2260	1500 E	4930	1760	9690	12700	3360	1050 E	1150	1770	27
28	1480	2200	2430	1410 E	4670	1790	9550	12300	2910	1080 E	1060	1630	28
29	1520	2310	2260	1300 F		3480	8400	12000	2740	1100 E	1060	1520	29
30	1550	2420	2400	1440 F		7680	8030	12700	3260	1080 E	1080	1470	30
31	1560		2420	1590 E		8480		13100		1020 E	1120		31
MEAN	1454	1643	2435	1754	8185	2607	8616	9339	6663	1822	1095	1515	MEAN
MAX	2100	2420	3110	2270	12100	8480	12500	13100	13000	3490	1280 E	2060	MAX
MIN.	1050	1400	1970	1300 E	1920	1420	3870	6050	2740	1020 E	1000 E	1140	MIN.
ACFT.	89380	97790	149700	107800	454600	160300	512700	574200	396500	112000	67360	90150	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day.

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-Feet
3885	13100	23.80	5	31	1400						2812000

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 40 34	121 15 51		79000	27.75	12-9-50	JUL 22-DEC 23 JAN 24-FEB 25 JUN 29-OCT 28 MAY 29-DATE	JUL 22-DEC 23 JAN 24-FEB 25 JUN 25-OCT 28 MAY 29-DATE	1931 1959			6.4 5.06 USCGS 0.00 USCGS

Station located on left bank 30 ft. above the Durham Ferry Highway Bridge, 3 mi. below the Stanislaus River 3.4 mi. NE of Vernalis. Drainage area is approx. 14,010 sq. mi. Natural flow of stream affected by storage reservoirs, power development, ground water withdrawals and diversions for irrigation. Low flows consist mainly of return flow from irrigation. This station is operated under the Federal-State Cooperative Program. The records are furnished by the U.S.G.S.

TABLE B-42

DAILY MEAN DISCHARGE
SOUTH FORK KINGS RIVER BELOW EMPIRE WEIR #2

STATION NO	WATER YEAR
C01120	1963

IN SECOND FEET													
OAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	OAY
1	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53	42	322	1
2	42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77	41	334	2
3	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77	41	328	3
4	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60	8	336	4
5	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66	29	351	5
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68	20	370	6
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47	20	429	7
8	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33	35	443	8
9	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35	49	443	9
10	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29	52	443	10
11	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27	52	406	11
12	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25	50	391	12
13	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25	50	381	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23	50	370	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23	50	324	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16	50	339	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15	61	356	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15	70	374	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7	16	352	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60	17	66	339	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	103	17	66	338	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	127	17	66	338	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	138	17	67	198	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	150	17	89	285	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	147	17	96	280	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	145	17	95	206	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83	30	103	100	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50	42	105	142	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47	49	189	99	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66	51	258	123	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48	48	310		31
MEAN	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	34.5	75.7	318	MEAN
MAX	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	150	77	310	443	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15	8	99	MIN
ACFT	543								2227	2120	4655	18910	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
39.5											28450

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 10	119 50	20S 19E									

Station located 1.0 mi. SW of Stratford. So. Fork Kings River, composed of Kings River water,
 is a tributary to the Tulare Lake area. Records furnished by Kings River Water Association.

TABLE B-43

DAILY MEAN DISCHARGE
CROSS CREEK BELOW LAKELAND CANAL #2
 IN SECOND FEET

STATION NO	WATER YEAR
C02602	1963

DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.0	34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6
7	0.0	0.0	0.0	0.0	164	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7
8	0.0	0.0	0.0	0.0	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.0	198	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9
10	0.0	0.0	0.0	0.0	223	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	201	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	80	0.0	0.0	0.0	0.0	75	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76	0.0	0.0	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82	0.0	0.0	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76	0.0	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79	0.0	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78	0.0	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63	0.0	0.0	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25	0.0	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31
MEAN	0.0	0.0	0.0	0.0	38	0.0	0.0	0.0	0.0	27	0.0	0.0	MEAN
MAX.	0.0	0.0	0.0	0.0	223	0.0	0.0	0.0	0.0	82	0.0	0.0	MAX
MIN.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	MIN
TOT.					2132					1684			TOT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation at no flow made on this day.

- E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
5.4											3816

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	OATE			FROM	TO		
36 12 42	119 34 05	NE10 20S 22E				21-DATE					

Station located below Cross Creek Weir, 4 mi. E of Guernsey. Tributary to Tulare Lake area. At times the flow is a combination of water from Kaweah River, Kings River, and Cottonwood Creek. Records furnished by Corcoran Irrigation District.

TABLE B-44

DAILY MEAN DISCHARGE
ELK BAYOU NEAR TULARE
IN SECOND FEET

STATION NO	WATER YEAR
C03130	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0*	0.0	0.0	60 *	0.0	0.0*	0.0	0.0	0.0	NR	NR	1
2	0.0	0.0	0.0	0.0	176 *	0.0	0.0	0.0	0.0	0.0	NR	NR	2
3	0.0	0.0	0.0*	0.0	174	0.0	0.0	0.0	0.0	0.0*	NR	NR	3
4	0.0	0.0	0.0	0.0*	210	0.0	0.0	0.0	0.0	0.0	NR	NR	4
5	0.0	0.0	0.0	0.0	243	0.0*	0.0	0.0	0.0*	0.0	NR	NR	5
6	0.0	0.0	0.0	0.0	223	0.0	0.0	0.0*	0.0	0.0	NR	NR	6
7	0.0	0.0	0.0	0.0	215	0.0	0.0	0.0	0.0	0.0	NR	NR	7
8	0.0	0.0	0.0	0.0	223	0.0	0.0	0.0	0.0	0.0	NR	NR	8
9	0.0*	0.0	0.0	0.0	224	0.0	30	0.0	0.0	0.0	NR	NR	9
10	0.0	0.0	0.0	0.0	235	0.0	9.8	0.0	0.0	0.0	NR	NR	10
11	0.0	0.0	0.0	0.0	209	0.0	4.7	0.0	0.0	0.0	NR	NR	11
12	0.0	0.0	0.0	0.0	76	0.0	3.1	0.0	0.0	0.0	NR	NR	12
13	0.0	0.0	0.0	0.0	7.6	0.0	3.0	0.0	0.0	0.0	NR	NR	13
14	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	NR	NR	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR a	NR	NR	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0*	NR	NR	NR	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0*	0.0	NR	NR	NR	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	27
28	0.0	0.0	0.0*	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR a	31
MEAN	0.0	0.0	0.0	0.0	81.4	0.0	1.7	0.0	0.0	NR	NR	NR	MEAN
MAX	0.0	0.0	0.0	0.0	243	0.0	30.0	0.0	0.0	NR	NR	NR	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NR	NR	NR	MIN
ACFT	0.0	0.0	0.0	0.0	4518	0.0	100	0.0	0.0	NR	NR	NR	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

II - E and *

a - See Note (a) below.

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE	DISCHARGE	ACRE- FEET
6.4	261 2.35 2 5 2020	0.0 GAGE HT 10 1 0000	4619

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 08 37	119 19 48	SW36 20S 24E	261	2.35	2- 5-63	OCT 58-DATE	MAR 57-DATE	1959		0.00	LOCAL

Station located 1.8 mi. W of U.S. Highway 99, 5.8 mi. S of Tulare. Prior to Mar. 4, 1960, station located 700 feet W of U.S. Highway 99, 4.5 mi. S of Tulare. Tributary to Tule River. Prior records, 1942 to July 1953, available at a site 1 mi. E of Elk Bayou Ave. 3.6 mi. below Old Highway 99 Bridge. Recorder installed March 6, 1957. Altitude of gage is approximately 250 ft. (from U.S.G.S. topographic map.)

(a) Work on control to install a gate created a condition, from 7-17-63 to 9-30-63, making it impossible to record low flows if such flow did occur.

TABLE B-45

DAILY MEAN DISCHARGE

FRIANT KERN CANAL DELIVERY TO PORTER SLOUGH

IN SECOND FEET

STATION NO	WATER YEAR
C03913	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	20	0.0	0.0	20	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	20	0.0	0.0	20	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	20	0.0	0.0	20	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	20	0.0	0.0	20	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	20	0.0	0.0	20	5
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	20	0.0	0.0	7	6
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	0.0	0.0	0.0	7
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17	0.0	0.0	0.0	9
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6	15	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	15	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	15	0.0	0.0	0.0	13
14	0.0	17	0.0	0.0	0.0	0.0	0.0	10	15	0.0	0.0	0.0	14
15	0.0	25	0.0	0.0	0.0	0.0	0.0	10	15	0.0	0.0	0.0	15
16	0.0	25	0.0	0.0	0.0	0.0	7	10	15	0.0	0.0	0.0	16
17	0.0	24	0.0	0.0	0.0	0.0	10	10	15	0.0	0.0	0.0	17
18	0.0	18	0.0	0.0	0.0	0.0	11	15	12	0.0	0.0	0.0	18
19	0.0	11	0.0	0.0	0.0	0.0	12	20	10	0.0	0.0	0.0	19
20	0.0	5	0.0	0.0	0.0	0.0	14	20	5	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	13	0.0	14	20	0.0	0.0	6	0.0	21
22	0.0	0.0	0.0	0.0	20	0.0	15	20	0.0	0.0	9	0.0	22
23	0.0	0.0	0.0	0.0	23	0.0	15	20	0.0	0.0	8	0.0	23
24	0.0	0.0	0.0	0.0	25	0.0	14	20	0.0	0.0	11	0.0	24
25	0.0	0.0	0.0	0.0	25	0.0	21	20	0.0	0.0	16	0.0	25
26	0.0	0.0	0.0	0.0	25	0.0	22	20	0.0	0.0	18	0.0	26
27	0.0	0.0	0.0	0.0	25	0.0	22	20	0.0	0.0	18	0.0	27
28	0.0	0.0	0.0	0.0	25	0.0	21	20	0.0	0.0	19	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	22	23	0.0	0.0	20	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	22	25	0.0	0.0	20	0.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22	0.0	0.0	20	0.0	31
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	MEAN
MAX	0.0	4.2	0.0	0.0	6.5	0.0	8.1	13.2	10.8	0.0	5.3	3.6	MAX
MIN	0.0	25	0.0	0.0	25	0.0	22	25	20	0.0	20	20	MIN
CFT.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	CFT.
		248			359		484	809	643		327	212	

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

† - E and *

MEAN
DISCHARGE
4.3

MAXIMUM			
DISCHARGE	GAGE HT	MO	DAY TIME

MINIMUM			
DISCHARGE	GAGE HT	MO	DAY TIME

TOTAL
ACRE- FEET
3082

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC.T.B.R. M.O.B.M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 05 00	119 04 50	SW20 21S 27E									

These flows are deliveries from Friant-Kern Canal into Porter Slough under contract agreement with the U.S.B.R. Delivery is at the intersection of Porter Slough with the Friant-Kern Canal approx. 4 mi. W of Porterville. Records furnished by U.S.B.R.

TABLE B-46

DAILY MEAN DISCHARGE

PRIANT KERN CANAL DELIVERY TO TULE RIVER
IN SECOND FEET

STATION NO	WATER YEAR
C03923	1963

IN SECONDS													
DAY	OCT.	NOV	DEC.	JAN	FEB	MAR.	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251	276	0.0	0.0	140	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	260	276	0.0	0.0	140	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	265	276	0.0	0.0	140	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	267	276	0.0	0.0	140	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	273	276	0.0	0.0	140	5
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	276	276	0.0	0.0	157	6
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	276	276	0.0	0.0	183	7
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	276	276	0.0	10	190	8
9	0.0	0.0	0.0	0.0	0.0	0.0	67	276	276	0.0	15	177	9
10	0.0	0.0	0.0	0.0	0.0	0.0	200	276	276	0.0	26	170	10
11	0.0	0.0	0.0	0.0	0.0	0.0	249	276	276	0.0	32	170	11
12	0.0	0.0	0.0	0.0	0.0	0.0	317	276	276	0.0	32	158	12
13	0.0	0.0	0.0	0.0	0.0	0.0	351	276	276	0.0	32	151	13
14	0.0	0.0	0.0	0.0	0.0	0.0	351	276	276	0.0	32	151	14
15	0.0	0.0	0.0	0.0	0.0	0.0	310	276	276	0.0	32	151	15
16	0.0	0.0	0.0	0.0	0.0	0.0	178	276	276	0.0	32	151	16
17	0.0	0.0	0.0	0.0	0.0	0.0	201	276	276	0.0	32	151	17
18	0.0	0.0	0.0	0.0	0.0	0.0	201	276	276	0.0	37	151	18
19	0.0	0.0	0.0	0.0	0.0	0.0	201	276	253	0.0	40	151	19
20	0.0	0.0	0.0	0.0	0.0	0.0	216	276	206	0.0	40	151	20
21	0.0	0.0	0.0	0.0	12	0.0	225	276	112	0.0	23	151	21
22	0.0	0.0	0.0	0.0	20	0.0	225	276	60	0.0	14	151	22
23	0.0	0.0	0.0	0.0	20	0.0	225	276	55	0.0	14	151	23
24	0.0	0.0	0.0	0.0	20	0.0	225	276	17	0.0	14	151	24
25	0.0	0.0	0.0	0.0	20	0.0	242	276	0.0	0.0	14	151	25
26	0.0	0.0	0.0	0.0	20	0.0	251	276	0.0	0.0	14	151	26
27	0.0	0.0	0.0	0.0	20	0.0	251	276	0.0	0.0	14	175	27
28	0.0	0.0	0.0	0.0	23	0.0	241	276	0.0	0.0	95	185	28
29	0.0	0.0	0.0	0.0	0.0	0.0	251	276	0.0	0.0	140	185	29
30	0.0	0.0	0.0	0.0	0.0	0.0	251	276	0.0	0.0	140	185	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	276	0.0	0.0	140	140	31
MEAN	0.0	0.0	0.0	0.0	5.5	0.0	174	274	189	0.0	32	158	MEAN
MAX	0.0	0.0	0.0	0.0	23	0.0	351	276	276	0.0	140	190	MAX
MIN.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251	0.0	0.0	0.0	140	MIN.
ACFT.					307		10372	16844	11248		2011	9420	ACFT.

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day
 † - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE	DISCHARGE	ACRE-Feet
69.4			50202

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 04 25	119 05 15	NW29 21S 27E									

These flows are deliveries from Friant-Kern Canal into Tule River under contract agreements with the U.S.B.R. Delivery is located on the Tule River approximately 4 mi. W of Porterville. Record furnished by U.S.B.R.

TABLE B-47

DAILY MEAN DISCHARGE
NORTH FORK TULE RIVER AT SPRINGVILLE

STATION NO	WATER YEAR
C32100	1963

IN SECOND FEET													
DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.6	0.5*	0.3	1.4	2000 *	25	88 *	187 *	47	9.9	0.8	0.4	1
2	0.3	0.3	0.3	1.3	396	24	80	179	44	8.0	1.0	0.3	2
3	0.4	0.3	0.3*	1.1	193	24	73	185	41	7.2*	0.6	0.3	3
4	0.9	0.3	0.9	0.7	92	22	74	173	40	7.7	0.5	0.4*	4
5	0.7	0.3	0.9	0.6	72 *	18	76	151	36 *	7.9	0.7*	0.6	5
6	0.3	0.2	0.6	0.5	60	18 *	76	143	37	7.2	0.8	0.7	6
7	0.3	0.2	0.9	0.5	50	17	287	135	37	6.1	0.7	0.6	7
8	0.4	0.3	0.9	0.5	43	17	305	123	34	5.6	1.0	0.5	8
9	0.9	0.6	0.9	0.5	42	20	203	170	31	5.2	1.0	0.5	9
10	0.3	0.6	0.6	0.5	183	22	157	133	30	4.1	1.0	0.7	10
11	0.3	0.5	0.4	0.5	104	20	123	130	32	2.7	0.6	0.5	11
12	0.3	0.5	0.5	0.5	83	20	110	113	40	2.3	0.5	0.5	12
13	0.3	0.5	1.0	0.3	73	18	100	106	40	2.3	0.8	0.5	13
14	0.6	0.5	1.0	0.5	75	17	148	100	33	1.6	0.8	0.6	14
15	0.4	0.4	0.8	0.5	72	25	321	95	30	1.0	0.6	0.6	15
16	0.4	0.4	1.3	0.5	60	27	214	91 *	28	1.2	0.7	0.6	16
17	0.4	0.4	1.1	0.5	54	43	175	89	23	0.8	0.4	0.8	17
18	0.2	0.4	0.7	0.5	48	36	145	88	21	0.8	0.4	1.0	18
19	0.5	0.6	0.5	0.5	45	31	131	86	19	1.1	0.4	0.9	19
20	0.3	0.3	0.5*	0.8	42	37	137	83	18	1.0	0.4	0.9	20
21	0.3	0.3	0.9	1.0	41	46	169	80	18	0.9	0.6	1.0	21
22	0.3	0.3	0.9	1.0	38	49	139	80	18	0.8	0.5	1.1	22
23	0.3	0.3	0.8	1.1	35	56	136	78	16	0.8	0.4	1.0	23
24	0.3	0.3	0.9	0.9*	34	51	136	74	15	0.8	0.3	1.0	24
25	0.4	0.3	1.0	0.7	32	48	136	68	13	0.9	0.4	0.8	25
26	0.4	0.3	1.1	0.6	30	47	176	66	12	0.9	0.4	0.7	26
27	0.2	0.3	1.2	0.6	29	48	146	62	11	0.9	0.4	0.7	27
28	0.5	0.3	1.6	0.6	27	167	129	61	11	0.6	0.4	0.7	28
29	0.4	0.3	1.5	0.7		116	141	63	11	0.8	0.4	0.8	29
30	0.5	0.3	1.5			89	165	56	12	0.7	0.5	1.0	30
31	0.6		1.4	1770		82		49		0.8	0.5		31
MEAN	0.4	0.4	0.9	61.8	143	41.3	150	106	26.6	3.0	0.6	0.7	MEAN
MAX.	0.9	0.6	1.6	1770	2000	167	321	187	47.0	9.9	1.0	1.1	MAX
MIN.	0.2	0.2	0.3	0.5	27.0	17.0	73.0	49.0	11.0	0.6	0.3	0.3	MIN.
ACFT.	26	22	54	3803	7960	2539	8918	6940	1583	184	37	41	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* = Discharge measurement or observation of no flow made on this day.

† - E and *

MEAN
DISCHARGE 43.8

MAXIMUM			
DISCHARGE	GAGE HT	MO	DAY TIME
4600	E	10.29	1 31 1550

MINIMUM			
DISCHARGE	GAGE HT	MO	DAY TIME
0.2	3.93	10	2 1550

TOTAL
ACRE- FEET 31700

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD	ZERO ON GAGE	REF DATUM	
			C.F.S.	GAGE HT.	DATE						
36 08 23	118 48 16	SE35 2DS 29E	4600E	10.29	1-31-63	FEB 57-DATE	FEB 57-DATE	1957		0.00	LOCAL

Station located at State Highway 190 Bridge, 0.8 mi. NE of Springville. Drainage area is 97.9 sq. mi.
Altitude of gage is approx. 990 ft. (from U.S.G.S. topographic map.)

TABLE B-49

DAILY MEAN DISCHARGE

TULF RIVER BELOW PORTERVILLE

IN SECOND FEET

STATION NO	WATER YEAR
C03169	1963

DAY	OCT	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	0.0	0.0	0.0	190 E	0.0	120	237	256	0.0	0.0	135	1
2	0.0	0.0	0.0	0.0	132 *	0.0	113	244	258	22	0.0	134	2
3	0.0	0.0	0.0*	0.0	233	0.0	112	256	258	26	0.3	125	3
4	0.0	0.0	0.0	0.0	211	0.0	113	254	258	4.9	0.0	125	4
5	0.0	0.0	0.0	0.0	185	0.0*	113	257	259	5.0	0.0*	126	5
6	0.0	0.0	0.0	0.0	193	0.0	110	256	261	0.0	0.0	138	6
7	0.0	0.0	0.0	0.0	201	0.0	125	256	261	0.0	0.8	163	7
8	0.0	0.0	0.0	0.0	205	0.0	114	256	258	0.0*	127	170	8
9	0.0*	0.0	0.0	0.0	216	0.0	118	256	256	0.0	192	160	9
10	0.0	0.0	0.0	0.0	195	0.0	214	263	258	0.0	212	152	10
11	0.0	0.0	0.0	0.0	188	0.0	239	270	261	0.0	191	150	11
12	0.0	0.0	0.0	0.0	183	0.0	290	265	258	0.0	192	137	12
13	0.0	0.0	0.0	0.0	200	0.0	325	263	256	0.0	192	133	13
14	0.0	0.0	0.0	0.0	192 *	0.0	329	256	258	0.0	187	135	14
15	0.0	0.0	0.0	0.0	200	0.0	302	258	261	0.0	197	133	15
16	0.0	0.0	0.0	0.0	227	0.0	169	256	263	0.0	200	132	16
17	0.0	0.0	0.0	0.0	215	0.0	195	252	263	0.0*	193	129	17
18	0.0	0.0	0.0	0.0	135	0.0*	198	258	261	0.0	194	132	18
19	0.0	0.0	0.0	0.0	0.7	0.0	196	258	239	1.1	202	133	19
20	0.0	0.0	0.0	0.0	0.1	0.0	206	258	200	0.0	189 *	136	20
21	0.0	0.0	0.0	0.0	4.2	0.0	216	258	105	0.0	133	132	21
22	0.0	0.0	0.0	0.0*	0.0	0.0	214	256	53	0.0	125	132	22
23	0.0	0.0	0.0	0.0	0.0	65	214	256	47	0.0	124	132	23
24	0.0	0.0	0.0	0.0	0.0	116 *	211	254	14	0.0	119	137	24
25	0.0	0.0	0.0	0.0	0.0	94	224	252	0.0	0.0	122	136	25
26	0.0	0.0	0.0	0.0	0.0	87	234	254	0.0	0.0	123	133	26
27	0.0	0.0	0.0	0.0	0.0	78	233	254	0.0	0.0	121	157	27
28	0.0	0.0	0.0*	0.0	0.0	107 *	230	256	0.0	0.0	110	164	28
29	0.0*	0.0	0.0	0.0	0.0	94 *	232	254	0.0	0.0	138	166	29
30	0.0	0.0	0.0	0.0	0.0	114	234	254	0.0	0.0	137	170	30
31	0.0	0.0	0.0	384 E	122	122	256	256	0.0	0.0	135		31
MEAN	0.0	0.0	0.0	12.4	130	28.3	198	256	177	1.9	124	141	MEAN
MAX	0.0	0.0	0.0	384 F	330 F	122	329	270	263	26.0	212	170	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	110	237	0.0	0.0	0.0	125	MIN
ACFT				762	7232	1740	11790	15740	10560	117	7648	8404	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE	DISCHARGE	ACRE-Feet
88.4	2180 E 4.56 1 31 2110	0.0 10 1 0000	63980

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
36 04 40	119 06 22	NW30 21S 27E	5170	8.17	5-19-57	FEB 57-DATE	FEB 57-DATE	1957	1959	0.00 -3.48 LOCAL

Station located 330 ft. above Rockford Road Bridge, 5.1 mi. W of Porterville. Flows regulated by Success Reservoir and spill from Friant-Kern Canal. Altitude of gage is approx. 400 ft. (from U.S.G.S. topographic map). Flows include C.V.P. releases from Friant-Kern Canal to Tule River.

TABLE B-49

DAILY MEAN DISCHARGE
CAMPBELL-MORELAND DITCH ABOVE PORTERVILLE
 IN SECOND FEET

STATION NO	WATER YEAR
C03970	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	12	0+0	0+0	10	0+0	0+0	0+0	0+0*	26	22 *	18 *	13	1
2	3+5	0+0	0+0	10	0+0	0+0	0+0*	0+0	30	23	20	12 *	2
3	1+5	0+0	0+0*	12	0+0	0+0	0+0	0+0	32	23	20	12	3
4	1+3	0+0	0+0	14	0+0	0+0	0+0	0+0	33	20	21	12	4
5	3+1	0+0	5+9	14	20	0+0	0+0	0+0	33	18	21	14	5
6	5+4	0+0	15	14	31	0+0*	0+0	0+0	33	17	21	14	6
7	7+8	0+0	16	13	32	0+0	0+0	0+0	33	17	24	14	7
8	7+8	0+0	16	12	32	0+0	0+0	0+0	34	16	25	14	8
9	9+3	0+0	18	11	27	0+0	0+0	0+0	34	17	25	13	9
10	9+6	3+5	19	11	23	0+0	0+0	0+0	34	17	24	13	10
11													
12	11	10	19	12	23	0+0	0+0	0+0	33	17	24	13	11
13	7+5	11	18	11	24	0+0	0+0	0+0	32	16	25	13	12
14	5+6	12	16	11	24	0+0	0+0	15	32	16	25	11	13
15	7+2	12	15	11	24	0+0	0+0	26	31	16	25	12	14
16	15	13	14	10	20	0+0	0+0	26	31	16	25	15	15
17	19	14	14	11	17	0+0	0+0	26	31	16	25	14 *	16
18	14	15	14	11	17	0+0	0+0	25	31	16	27	14	17
19	12	15	14	11	18	0+0	0+0	24	32	16	34	15	18
20	11	17	11	12	21	0+0*	0+0	22	32	16	30	15	19
21			10 *	12	22	0+0	0+0	22 *	27	16	24	15	20
22	10	18	12	12	18	0+0	0+0	21	22	16	24	16	21
23	8+4	18	12	12	8+6	0+0	0+0	20	22	16	19	13	22
24	5+4*	20	12	12	0+0	0+0	0+0	20	22	16	15	11	23
25	5+1	20	13	12	0+0	0+0	0+0	20	22	16	15	16	24
26	4+4	20	13	12	0+0	0+0	0+0	19	22	16	16	17	25
27	3+9	19	12	13	0+0	0+0	0+0	20	21	16	16	18	26
28	1+4	9+0	10	13	0+0	0+0	0+0	19	21	16	15	17	27
29	0+0	0+0	10	13	0+0	0+0	0+0	18	21	16	15	17	28
30	0+0	0+0	11	14	0+0	0+0	0+0	18	21	16	14	18	29
31	0+0	0+0	12	12	0+0	0+0	0+0	17	21	15	13	19 *	30
32	0+0		10	5+7	0+0	0+0		14		16	13		31
MEAN	6+9	8+7	11+6	11+7	14+3	0+0	0+0	12+6	28+3	17+0	21+2	14+3	MEAN
MAX	19+0	20+0	19+0	14+0	32+0	0+0	0+0	26+0	34+0	23+0	34+0	19+0	MAX
MIN	0+0	0+0	0+0	5+7	0+0	0+0	0+0	0+0	21+0	15+0	13+0	11+0	MIN
ACFT	425	519	714	719	797			778	1684	1043	1305	853	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* Discharge measurement or observation of no flow made on this day.

E - E and *

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
12+2	38+0	3.34	8	18	1130	0+0		10	27	2400	8836

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B&M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF
			C.F.S.	GAGE HT.	DATE			FROM	TO	
36 02 48	118 56 54	NW 4 22S 28E				AUG 42-DATE		Oct 62	Oct 62	LOCAL
										LOCAL

Station located 3.9 mi. SE of Porterville approximately 2600ft. below head. This is regulated diversion from Tule River. This station is operated under cooperative agreement between the Department of Water Resources and the Tule River Association.

TABLE B-50

DAILY MEAN DISCHARGE
PORTER SLOUGH AT PORTERVILLE
 IN SECOND FEET

STATION NO	WATER YEAR
C03182	1963

DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0*	0.0	0.0	142 *	0.0	0.0*	35	0.0	43	40 *	39	1
2	0.0	0.0	0.0	0.0	132 *	0.0	0.0	36 *	0.0	42	27	38	2
3	0.0	0.0	0.0*	0.0*	141	0.0	0.0	36	0.0	41 *	23	39	3
4	0.0	0.0	0.0	0.0	137	0.0	0.0	33	0.0	43	25	37 *	4
5	0.0	0.0	0.0	0.0	144	0.0	0.0	33	0.0*	43	24	30	5
6	0.0	0.0	0.0	0.0	143	0.0*	0.0	34	0.0	42	24	29	6
7	0.0	0.0	0.0	0.0	143	0.0	0.0	34	0.0	42	23	28	7
8	0.0	0.0	0.0	0.0	144	0.0	0.0	35	3.9	48	20	28	8
9	0.0*	0.0	0.0	0.0	143	0.0	0.0	37	34	54	16	28	9
10	0.0	0.0	0.0	0.0	139	0.0	0.0	34	38	57	14.8	27	10
11	0.0	0.0	0.0	0.0	136	0.0	0.0	31	40	54	0.3	27	11
12	0.0	0.0	0.0	0.0	137	0.0	0.0	30	39	53	0.0	27	12
13	0.0	0.0	0.0	0.0	142	0.0	0.0	31	31	53	0.0	17	13
14	0.0	0.0	0.0	0.0	144	0.0	0.0	32	35	54	0.0	1.6	14
15	0.0	0.0	0.0	0.0	145	0.0	0.0	21	48	54	0.0	0.3	15
16	0.0	0.0	0.0	0.0	145	0.0	0.0	1.2	46	54	3.2	0.0	16
17	0.0	0.0	0.0	0.0*	145	0.0	0.0*	0.2	47	54	31	0.0	17
18	0.0	0.0	0.0	0.0	94	0.0*	0.0	0.0	49	54	34	0.0*	18
19	0.0	0.0*	0.0	0.0	23	0.0	0.0	10	50	49	34	0.0	19
20	0.0	0.0	0.0	0.0	20	0.0	0.0	25	48	48	41	0.0	20
21	0.0	0.0	0.0	0.0	13	0.0	0.0	0.9	50	47	38	0.0	21
22	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	48	47	39	0.0	22
23	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	45	47	38	0.0	23
24	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	46	47	38	0.0	24
25	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	45	47	38	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47	46	37	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45	46	37	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44	47	39	3.6	28
29	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	42	47	38	30	29
30	0.0	0.0	0.0	4.3	0.0	0.0	38	0.0	42	47	38	36	30
31	0.0	0.0	0.0	124 E	0.0	0.0	0.0	0.0	46	46	38	30	31
MEAN	0.0	0.0	0.0	4.1	91.2	0.0	1.6	17.1	32.1	48.3	25.3	15.5	MEAN
MAX	0.0	0.0	0.0	124 E	145	0.0	38.0	37.0	50.0	57.0	41.0	39.0	MAX
MIN.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0	0.0	0.0	MIN.
ACFT				254	5064		92	1050	1910	2967	1558	923	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN		MAXIMUM					MINIMUM					TOTAL	
DISCHARGE		DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET	
19.1		224 E	3.70	1	31	1900	0.0		10	1	0000	13820	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM TO	ZERO ON GAGE	REF DATUM	
			C.F.S.	GAGE HT.	DATE						
36 03 29	118 59 08	SE31 21S 28E				JAN 42-DATE	JAN 42-DATE	1957	0.00	LOCAL	

Station located at "B" Lane Bridge, immediately E of Porterville. This is regulated diversion from Tule River. Altitude of gage is approx 465 ft. (from U.S.G.S. topographic map).

TABLE B-51

DAILY MEAN DISCHARGE
PORTER SLOUGH DITCH AT PORTERVILLE

STATION NO.	WATER YEAR
C03984	1963

IN SECOND FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	0.0	0.0	0.0	14	0.0	0.0	10	0.0	22 *	14 *	9.6	1
2	0.0	0.0	0.0	0.0	13	0.0	0.0*	13 *	0.0	21	14	9.4*	2
3	0.0	0.0	0.0*	0.0*	13	0.0	0.0	10	0.0*	19	13	8.2	3
4	0.0	0.0	0.0	0.0	13	0.0	0.0	11	0.0	17	12	6.2	4
5	0.0	0.0	0.0	0.0	14	0.0	0.0	12	0.0	17	13	5.3	5
6	0.0	0.0	0.0	0.0	14	0.0*	0.0	13	0.0	17	14	6.1	6
7	0.0	0.0	0.0	0.0	14	0.0	0.0	13	0.0	17	14	5.9	7
8	0.0	0.0	0.0	0.0	15	0.0	0.0	14	0.0	16	12	6.0	8
9	0.0	0.0	0.0	0.0	16	0.0	0.0	14	0.4	15	9.9	8.9	9
10	0.0	0.0	0.0	0.0	14	0.0	0.0	14	12	16	0.0	10	10
11	0.0	0.0	0.0	0.0	14 *	0.0	0.0	14	19	16	0.0	10	11
12	0.0	0.0	0.0	0.0	15	0.0	0.0	14	19	15	0.0	10	12
13	0.0	0.0	0.0	0.0	15 *	0.0	0.0	12 *	15	15	0.0	2.5	13
14	0.0	0.0	0.0	0.0	16	0.0	0.0	5.8	14	15	0.0	0.0	14
15	0.0	0.0	0.0	0.0	16 *	0.0	0.0	0.0	15	14 *	0.0*	0.0	15
16	0.0	0.0	0.0	0.0	16	0.0	0.0	0.0	14	14	0.0	0.0*	16
17	0.0	0.0	0.0	0.0*	16	0.0	0.0*	0.0	16	14	0.0	0.0	17
18	0.0	0.0	0.0	0.0	11	0.0*	0.0	0.0	15	13 *	0.0	0.0	18
19	0.0	0.0*	0.0	0.0	0.0	0.0	0.0	0.0	14	12	7.1	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	9.8	12	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	7.8	12	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	8.0	14	0.0	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12 *	8.0*	13	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13	9.9	12	0.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17	12	12	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19	13	12	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19	13	13	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	13	10	0.0	28
29	0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21	13	9.4	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	21	13	9.5	5.5*	30
31	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	13	9.5	0.0	31
MEAN	0.0	0.0	0.0	0.2	9.2	0.0	0.1	5.5	11.2	14.1	8.4	3.5	MEAN
MAX	0.0	0.0	0.0	5.6	16.0	0.0	2.4	14.0	21.0	22.0	14.0	10.0	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	MIN
ACFT				11	512		5	337	669	870	518	205	ACFT

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day.
 ‡ - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
4.3	NR					NR					3127

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
36 04 06	119 01 06	SE26 21S 27E				JAN 43-DATE		1943		0.00 LOCAL

Station located in Porterville 0.5 mi. W of Porterville Post Office, approximately 150 ft. below head. This is regulated diversion from Tule River via Porter Slough. This station is operated under cooperative agreement between the Department of Water Resources and the Tule River Association.

TABLE B-52

DAILY MEAN DISCHARGE
PORTER SLOUGH NEAR PORTERVILLE

STATION NO	WATER YEAR
C03187	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	0.0	0.0*	0.0	0.0	73	0.0	0.0*	0.0	0.0	2.5	7.4	10	1
2	0.0	0.0	0.0	0.0	76 *	0.0	0.0	0.0*	0.0	1.8	0.0	10	2
3	0.0	0.0	0.0*	0.0*	98	0.0	0.0	0.0	0.0	4.0*	0.0	11	3
4	0.0	0.0	0.0	0.0	93	0.0	0.0	0.0	0.0	5.9	0.0	13 *	4
5	0.0	0.0	0.0	0.0	95 *	0.0	0.0	0.0	0.0*	6.3	0.0*	8.8	5
6	0.0	0.0	0.0	0.0	101	0.0*	0.0	0.0	0.0	6.0	0.0	7.0	6
7	0.0	0.0	0.0	0.0	111	0.0	0.2	0.0	0.0	5.6	0.0	6.4	7
8	0.0*	0.0	0.0	0.0	108	0.0	0.0	0.0	0.0	9.1	0.0	6.3	8
9	0.0	0.0	0.0	0.0	111	0.0	0.0	0.5	0.0	17	0.0	4.4	9
10	0.0	0.0	0.0	0.0	111	0.0	0.0	1.1	0.0	20	0.0	3.5	10
11	0.0	0.0	0.0	0.0	91 *	0.0	0.0	0.0	0.0	19	0.0	2.8	11
12	0.0	0.0	0.0	0.0	93	0.0	0.0	0.0	0.8	19	0.0	2.7	12
13	0.0	0.0	0.0	0.0	97 *	0.0	0.0	0.5*	0.1	19	0.0	4.9	13
14	0.0	0.0	0.0	0.0	94	0.0	0.1	8.4	1.0	20	0.0	0.0	14
15	0.0	0.0	0.0	0.0	96	0.0	0.0	12	11	20	0.0	0.0	15
16	0.0	0.0	0.0	0.0	102	0.0	0.0	0.0	12 E	19	0.0	0.0	16
17	0.0	0.0	0.0	0.0	99	0.0	0.0*	0.0	12 E	19	0.2	0.0	17
18	0.0	0.0	0.0	0.0	61	0.0*	0.0	0.0	12 E	21	10	0.0*	18
19	0.0	0.0	0.0	0.0	18	0.0	0.0	0.0	11 *	18	5.4	0.0	19
20	0.0	0.0	0.0	0.0	16	0.0	0.0	11	11	17	7.3	0.0	20
21	0.0	0.0	0.0	0.0	11	0.0	0.0	0.0	13	19	6.1	0.0	21
22	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	15	18	5.9	0.0	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	20	6.4	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	18	7.4	0.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	15	7.1	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	13	6.9	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	12	7.1	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	11	9.2	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	12	9.7	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	11	9.9	0.0	30
31	0.0	0.0	0.0	28 E	0.0	0.0	0.0	0.0	0.0	11	10	0.0	31
MEAN	0.0	0.0	0.0	0.9	62.8	0.0	0.0	1.1	5.3	13.8	3.7	3.0	MEAN
MAX	0.0	0.0	0.0	28.0E	111	0.0	0.2	12.0	15.0	21.0	10.0	13.0	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	MIN
ACFT	0.0	0.0	0.0	56	3486	0.0	1	66	313	851	230	180	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day.

E - E and *

MEAN	MAXIMUM	MINIMUM	TOTAL
DISCHARGE	DISCHARGE GAGE HT MO DAY TIME	DISCHARGE GAGE HT MO DAY TIME	ACRE- FEET
7.2	153 E 3.67 2 9 1900	0.0 0.0 10 1 0000	5183

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
36 04 00	119 03 08	NE28 21S 27E	364	5.14	4- 3-58	JAN 57-DATE	JAN 57-DATE	1957		0.00 LOCAL

Station located at Newcomb Drive Bridge, 2.0 mi. W of Porterville. Tributary to Tulare Lake Basin via Tule River. Altitude of gage is approx. 425 ft. (from U.S.G.S. topographic map).

TABLE B-53

DAILY MEAN DISCHARGE
VANDALIA DITCH NEAR PORTERVILLE

STATION NO	WATER YEAR
C03965	1963

IN SECOND FEET

OAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OAY
1	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0*	3.8	0.0*	5.0*	0.0	1
2	0.0	0.0	0.0	0.0	0.2	0.0	0.0*	0.0	4.0	3.4	5.0	0.0*	2
3	0.0	0.0	0.0*	0.0*	0.2	0.0	0.0	0.0	4.1*	5.8	5.0	0.0	3
4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	4.1	5.8	4.9	2.3	4
5	0.0	0.0	0.0	0.0	2.3E	0.0	0.0	0.0	4.1	6.0	5.2	4.3	5
6	0.0	0.0	0.0	0.0	6.5E	0.0*	0.0	0.0	4.1	6.1	5.4	4.3	6
7	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	4.2	6.1	2.0	4.3	7
8	0.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0	4.1	6.2	0.2	4.3	8
9	0.0	0.0	0.0	0.0	6.8	0.0	0.0	3.9	3.9	6.4	0.1	4.3	9
10	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	3.9	6.8	0.1	4.5	10
11	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	3.8	7.1	0.1	4.6	11
12	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	3.4	7.2	0.0	4.6	12
13	0.0	0.0	0.0	0.0	6.7*	0.0	0.0	0.0	3.3	7.2	0.0	4.4	13
14	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	3.0	7.2	0.0	4.1	14
15	0.0	0.0	0.0	0.0	6.9	0.0	0.0	2.5	3.1	7.1	0.0	4.0	15
16	0.0	0.0	0.0	0.0	7.1	0.0	0.0	3.9	3.1	7.1	0.0	4.0*	16
17	0.0	0.0	0.0	0.0*	7.0	0.0	0.0*	3.9	3.1	7.2*	0.0	3.9	17
18	0.0	0.0	0.0	0.0	5.5	0.0	0.0	3.9	3.3	7.4	0.0	4.0	18
19	0.0	0.0	0.0	0.0	4.8	0.0*	0.0	3.9	3.5	7.3	0.0	4.0	19
20	0.0	0.0	0.0	0.0	5.2	0.0	0.0	3.5	3.7	7.2	0.0	3.9	20
21	0.0	0.0	0.0	0.0	5.0	0.0	0.0	3.3	3.4	7.2	0.0	3.9	21
22	0.0	0.0	0.0	0.0	4.5	0.0	0.0	3.3*	3.0	7.1	0.0	3.9	22
23	0.0*	0.0	0.0	0.0	2.0	0.0	0.0	3.3	3.3	7.3	0.0	3.9	23
24	0.0	0.0	0.0	0.0	0.1	0.0	0.0	3.3	3.7	7.3	0.0	4.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	1.6*	7.2	0.0	3.9	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	6.9	0.0	3.8	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	6.3	0.0	3.7	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	6.0	0.0	3.8	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	5.8	0.0	3.9	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	5.8	0.0	4.0*	30
31	0.0	0.0	0.0	8.7E	0.0	0.0	0.0	4.0	0.0	5.4	0.0	0.0	31
MEAN	0.0	0.0	0.0	0.3	4.1	0.0	0.0	2.0	3.0	6.4	1.1	3.6	MEAN
MAX	0.00	0.0	0.0	8.7E	7.1	0.0	0.0	4.1	4.2	7.4	5.4	4.6	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	MIN
ACFT				17	228			125	176	391	65	215	ACFT

E - Estimated
 NR - No Record
 * - Discharge measurement or observation
 of no flow made on this day
 ‡ - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	DISCHARGE	GAGE HT	MO	DAY	ACRE FEET
1.7	NR				NR				1217

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD	ZERO ON GAGE	REF DATUM	
			C.F.S.	GAGE HT.	DATE						
36 03 00	118 58 18	NE 5 22S 28E				1948-DATE		1948		0.00	LOCAL

Station located 2.8 mi. SE of Porterville approximately 1000 ft. below head. This is regulated diversion from Tule River. This station is operated under cooperative agreement between the Department of Water Resources and the Tule River Association.

TABLE B-54

DAILY MEAN DISCHARGE

POPLAR DITCH NEAR PORTERVILLE

IN SECOND FEET

STATION NO	WATER YEAR
C03960	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	0.0	0.0*	3.3F	0.1	4.8	0.0	0.0*	0.0*	0.0	0.0*	103	85	1
2	0.0	0.0	3.4F	0.1	72	0.0	0.0	0.0	9.2	0.0	104	84	2
3	0.0	0.0	3.3F	0.0*	76	0.0	0.0	0.0	23	0.0	102	84	3
4	0.0	0.0	3.3F	0.0	75	0.0	0.0	0.0	26	0.0	103	83	4
5	0.0	0.1	3.2F	0.0	75 *	0.0	0.0	0.0	29	0.0	102	82	5
6	0.0	0.3	1.2F	0.0	75	0.0*	0.0	0.0	29	0.0	99	81	6
7	0.0	0.4	0.5	0.0	76	0.0	0.0	0.0	26	0.0	99	80	7
8	0.0*	0.3	0.5	0.0	76	0.0	0.0	0.0	23	14	99	81	8
9	0.0	0.3	0.3	0.0	77	0.0	0.0	9.4	24	55	98	82	9
10	0.0	0.3	0.3	0.0	76	0.0	0.0	25	24	100	97	82	10
11	0.0	0.4	0.4	0.0	74	7.3	0.0	27	24	109	97	82	11
12	0.0	0.4	0.2	0.0	70	26	0.0	27	24	104	96	83	12
13	0.0	0.3	0.2	0.0	73	32	0.0	29	12	108	95	47	13
14	0.0	0.2	0.2	0.0	75 *	32 *	0.0	26	0.0	108	96	1.9	14
15	0.0	0.1	0.3	0.0	75	33	0.0	23	0.0	105	95	0.8	15
16	0.0	0.1	0.3	0.0	75	39	0.0	23	0.0	105	94	0.6	16
17	0.0	0.0	0.2	0.0	76	38	0.0*	23	0.0	106	94	0.6	17
18	0.0	0.0	0.1	0.0	37	36	0.0	23	9.8	107	94	0.6	18
19	0.0	0.0	0.0	0.0	0.2	31 *	0.0	24	36	105	95	0.6	19
20	0.0	0.2	0.0	0.0	0.0	27	0.0	24	46	103	95	0.7	20
21	0.0	0.5	0.0	0.0	0.0	24	0.0	13	48	101	98	0.7	21
22	0.0	1.1	0.0	0.0	0.0	14	0.0	0.0	50	99	100	0.7	22
23	0.0	1.4	0.0	0.0	0.0	1.5	0.0	0.0	48	96	100	0.7	23
24	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	47	93	100	0.7	24
25	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	47	92	100	0.8	25
26	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	46	94	100	0.8	26
27	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.1	45	95	98	0.8	27
28	0.0	3.2F	0.1	0.0	0.0	0.0	0.0	0.2	42	97	86	3.2	28
29	0.0	3.2F	0.1	0.0	0.0	0.0	0.0	0.0	22	98	85	15	29
30	0.0	3.2F	0.1	0.1	0.0	0.0	0.0	0.0	0.0	101	85	14 *	30
31	0.0		0.1	19	0.0	0.0	0.0	0.0		103	85		31
MEAN	0.0	0.7	0.7	0.6	45.8	11.0	0.0	9.6	25.3	74.1	96.6	36.0	MEAN
MAX	0.0	3.2F	3.4F	19.0	77.0	39.0	0.0	29.0	50.0	109	104	85.0	MAX
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.0	0.6	MIN
ACFT		41	43	38	2541	676		588	1507	4558	5939	2141	ACFT

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day

- E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE- FEET
25.0	114	3.42	7	10	2220	0.0		10	1	0000	18070

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M 0.8 BM	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 03 18	119 00 54	SW36 21S 27E				APR 42-DATE		1942		0.00	LOCAL

Station located 1.0 m. S of Porterville approximately 4750 ft. below head. This is regulated diversion from Tule River. This station is operated under cooperative agreement between the Department of Water Resources and the Tule River Association.

TABLE B-55

DAILY MEAN DISCHARGE
HUBBS-MINOR DITCH AT PORTERVILLE

STATION NO	WATER YEAR
C03925	1963

IN SECOND FEET														DAY
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY	
1	NR	NR	ND	NR	NR	0.0	0.0*	0.0*	12	12 *	16 *	6.6 *	1	
2	NR	NR	ND	NR	0.0	0.0	0.0	0.0	12	14	16	7.6 *	2	
3	NR	NR	ND	NR	0.0	0.0	0.0	0.0	13 *	15	17	15	3	
4	NR	NR	ND	NR	0.0	0.0	0.0	0.0	12	14	15	19 *	4	
5	NR	NR	ND	NR	0.0	0.0	0.0	0.0	10	14	14	18 *	5	
6	NR	NR	ND	NR	NR	0.0*	0.0	0.0	6.3*	14	11	16	6	
7	NR	NR	ND	NR	NR	0.0	0.0	0.0	2.7	14	5.6	13	7	
8	NR	NR	ND	NR	NR	0.0	0.0	0.0	2.8	13	8.1	9.2	8	
9	NR	NR	ND	NR	NR	0.0	0.0	0.0	2.0	12	7.1	5.7	9	
10	NR	NR	ND	NR	NR	0.0	0.0	0.0	2.1	12	7.1	5.1	10	
11	NR	NR	ND	NR	2.5*	0.0	0.0	0.0	2.7	12	6.0	4.8	11	
12	NR	NR	ND	NR	10	3 E	0.0	0.0	2.6	13	4.5	9.6	12	
13	NR	NR	ND	NR	12 *	5 E	0.0	0.0	2.8	13	4.8	15	13	
14	NR	NR	ND	NR	13	17 #	0.0	0.5	2.3	13	6.6	14	14	
15	NR	NR	ND	NR	14	10 E	0.0	4.0	8.7	14	2.8*	13	15	
16	NR	NR	ND	NR	14	10 E	0.0	5.1*	12	15	0.0	13 *	16	
17	NR	NR	ND	NR	14	5 E	0.0*	5.7	14	15	2.5	13	17	
18	NR	NR	ND	NR	5.8	5 F	0.0	6.2	13	16	5.1	16	18	
19	NR	NR	ND	NR	0.0	6 #	0.0	7.8	13	15	5.7	18	19	
20	NR	NR	ND	NR	0.0	0.5	0.0	14	13	14	4.7	17	20	
21	NR	NR	ND	NR	0.0	0.0	0.0	22	14	14	7.1	16	21	
22	NR	NR	ND	NR	0.0	0.0	0.0	22	17	14	9.9	16	22	
23	NR	NR	ND	NR	0.0	0.0	0.0	22	20	14	10	17	23	
24	NR	NR	ND	NR	0.0	0.0	0.0	22	15	13	11	14	24	
25	NR	NR	ND	NR	0.0*	0.0	0.0	22	8.6	14	11	13	25	
26	NR	NR	ND	NR	0.0	0.0	0.0	17	13	14	9.6	13	26	
27	NR	NR	ND	NR	0.0	0.0	0.0	9.0	13	14	5.2	13	27	
28	NR	NR	ND	NR	0.0	0.0	0.0	8.0	13	14	3.3	16	28	
29	NR	NR	ND	NR	0.0	0.0	0.0	8.0	13	14	6.5	15	29	
30	NR	NR	ND	NR	0.0	0.0	0.0	8.6	12	15	6.1	16 *	30	
31	NR	NR	ND	NR	0.0	0.0	0.0	1.1*	16	16	6.7	16 *	31	
MEAN	NR	NR	ND	NR	NR	2.0E	0.0	6.6	9.9	14	7.9	13	MEAN	
MAX	NR	NR	ND	NR	NR	17 E	0.0	22	20	16	16	19	MAX	
MIN	NR	NR	ND	NR	NR	0.0	0.0	0.0	2.0	12	0.0	4.8	MIN	
ACFT	NR	NR	ND	NR	NR	122 E	0.0	407	590	851	483	793	ACFT	

E - Estimated

NR - No Record

* - Discharge measurement or observation
of no flow made on this day

- E and *

a - See note (a) below

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-Feet
											a 3415

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
36 03 27	119 02 02	NW35 21S 27E				DEC 42-DATE			1942		0.00 LOCAL

Station located 1.1 mi. SW of Porterville, approximately 3400 ft. below head. This is regulated diversion from Tule River. This station is operated under cooperative agreement between the Department of Water Resources and the Tule River Association.

(a) During periods of no record the recorder at this station was deactivated. This recorder was activated prior to anticipated diversion periods upon notification from the Tule River Association. It is assumed there was no flow during the "no record" periods.

TABLE B-56

DAILY MEAN DISCHARGE
RHOODES-FINE DITCH NEAR PORTERVILLE

STATION NO.	WATER YEAR
C03940	1963

IN SECOND FEET													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	NR	NR	NR	NR	NR	0.0	NR	18 *	7.7	12 *	NR	NR	1
2	NR	NR	NR	NR	NR	0.0	NR	22	2.4	14	NR	NR	2
3	NR	NR	NR	NR	NR	0.0	NR	19	8.7*	19	NR	NR	3
4	NR	NR	NR	NR	NR	0.0	NR	19	16	12	NR	NR	4
5	NR	NR	NR	NR	NR	0.0	NR	18	18	7.0	NR	NR	5
6	NR	NR	NR	NR	NR	NR	NR	20	18	7.4	NR	NR	6
7	NR	NR	NR	NR	NR	NR	NR	19	18	4.1	NR	NR	7
8	NR	NR	NR	NR	NR	NR	NR	20	18	2.6	NR	NR	8
9	NR	NR	NR	NR	NR	NR	NR	25	16	0.0	NR	NR	9
10	NR	NR	NR	NR	NR	NR	NR	28	16	0.0	NR	NR	10
11	NR	NR	NR	NR	NR	NR	NR	27	19	0.0	NR	NR	11
12	NR	NR	NR	NR	0.0	NR	NR	27	18	0.0	NR	NR	12
13	NR	NR	NR	NR	0.0*	NR	NR	27	20	0.0	NR	NR	13
14	NR	NR	NR	NR	0.0	NR	NR	27	16	0.0	NR	NR	14
15	NR	NR	NR	NR	0.0	NR	NR	26	7.2	0.0	NR	NR	15
16	NR	NR	NR	NR	0.0	NR	NR	22 *	8.2	0.0	NR	NR	16
17	NR	NR	NR	NR	0.0	NR	NR	21	6.5	0.0	NR	NR	17
18	NR	NR	NR	NR	0.0	NR	0.0	17	5.6	0.0	NR	NR	18
19	NR	NR	NR	NR	0.0	NR	0.0	6.8	7.2	0.0	NR	NR	19
20	NR	NR	NR	NR	0.0	NR	0.0	0.0	15	0.0	NR	NR	20
21	NR	NR	NR	NR	0.0	NR	0.0	4.9	18	0.0	NR	NR	21
22	NR	NR	NR	NR	0.0	NR	0.0	13	18	0.0	NR	NR	22
23	NR	NR	NR	NR	0.0	NR	0.0	13	16	0.0	NR	NR	23
24	NR	NR	NR	NR	0.0	NR	2.1	13	18	0.0	NR	NR	24
25	NR	NR	NR	NR	0.0*	NR	9.5	12	17	0.0*	NR	NR	25
26	NR	NR	NR	NR	0.0	NR	13	13	19	0.0	NR	NR	26
27	NR	NR	NR	NR	0.0	NR	14	19	19	0.0	NR	NR	27
28	NR	NR	NR	NR	0.0	NR	10	18	18	0.0	NR	NR	28
29	NR	NR	NR	NR	NR	NR	15	16	17	0.0	NR	NR	29
30	NR	NR	NR	NR	NR	NR	15	16	17	0.0	NR	NR	30
31	NR	NR	NR	NR	NR	NR	NR	17	NR	0.0	NR	NR	31
MEAN	NR	NR	NR	NR	NR	NR	NR	18	15	2.5	NR	NR	MEAN
MAX	NR	NR	NR	NR	NR	NR	NR	28	20	19	NR	NR	MAX
MIN.	NR	NR	NR	NR	NR	NR	NR	0.0	2.4	0.0	NR	NR	MIN.
ACFT.	NR	NR	NR	NR	NR	NR	NR	1120	872	155	NR	NR	ACFT.

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day

- E and *

a - See note (a) below

MEAN	MAXIMUM					MINIMUM					TOTAL ACRE-Feet a 2303
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 03 26	119 04 13	SE32 215 27E				DEC 42-DATE		1942		0.00	LOCAL

Station located 3.1 mi. SW of Porterville, approximately 3100 ft. below head. This is regulated diversion from Tule River. This station is operated under cooperative agreement between Department of Water Resources and the Tule River Association.

- (a) During periods of "no record" the recorder at this station was deactivated. This recorder was activated prior to anticipated diversion periods upon notification from the Tule River Association. It is assumed there was no flow during the "no record" periods.

TABLE B-57

DAILY MEAN DISCHARGE
WOODS-CENTRAL DITCH NEAR PORTERVILLE
 IN SECOND FEET

STATION NO	WATER YEAR
C03948	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	NR	NR	NR	NR	45 E	NR	NR	NR	NR	0.0*	188 *	NR	1
2	NR	NR	NR	NR	80	NR	NR	NR	NR	45	188	NR	2
3	NR	NR	NR	NR	89	NR	NR	NR	NR	107	187	NR	3
4	NR	NR	NR	NR	101	NR	NR	NR	NR	140	189	NR	4
5	NR	NR	NR	NR	98 *	NR	NR	NR	NR	150 *	190	NR	5
6	NR	NR	NR	NR	104	NR	NR	NR	NR	153 *	190	NR	6
7	NR	NR	NR	NR	107	NR	NR	NR	NR	155	195	NR	7
8	NR	NR	NR	NR	108	NR	NR	NR	NR	155 *	66 *	NR	8
9	NR	NR	NR	NR	108	NR	NR	NR	NR	147	0.0	NR	9
10	NR	NR	NR	NR	100	NR	NR	NR	NR	137	0.0	NR	10
11	NR	NR	NR	NR	91	NR	NR	NR	NR	155	0.0	NR	11
12	NR	NR	NR	NR	88	NR	NR	NR	NR	155 *	0.0	NR	12
13	NR	NR	NR	NR	90	NR	NR	NR	NR	149	0.0	NR	13
14	NR	NR	NR	NR	86 *	NR	NR	NR	NR	149	0.0	NR	14
15	NR	NR	NR	NR	89	NR	NR	NR	NR	150	0.0*	NR	15
16	NR	NR	NR	NR	94	NR	NR	NR	NR	149 *	NR	NR	16
17	NR	NR	NR	NR	95	NR	NR	NR	NR	161 *	NR	NR	17
18	NR	NR	NR	NR	54	NR	NR	NR	NR	179 *	NR	NR	18
19	NR	NR	NR	NR	0.0	NR	NR	NR	NR	185 *	NR	NR	19
20	NR	NR	NR	NR	0.0	NR	NR	NR	NR	170	NR	NR	20
21	NR	NR	NR	NR	0.0	NR	NR	NR	NR	169	NR	NR	21
22	NR	NR	NR	NR	0.0	NR	NR	NR	NR	179	NR	NR	22
23	NR	NR	NR	NR	0.0	NR	NR	NR	0.0*	179	NR	NR	23
24	NR	NR	NR	NR	0.0	NR	NR	NR	0.0	178	NR	NR	24
25	NR	NR	NR	NR	0.0*	NR	NR	NR	0.0	178 *	NR	NR	25
26	NR	NR	NR	NR	NR	NR	NR	NR	0.0	179 *	NR	NR	26
27	NR	NR	NR	NR	NR	NR	NR	NR	0.0	180	NR	NR	27
28	NR	NR	NR	NR	NR	NR	NR	NR	0.0	184	NR	NR	28
29	NR	NR	NR	NR	NR	NR	NR	NR	0.0	183	NR	NR	29
30	NR	NR	NR	NR	NR	NR	NR	NR	0.0	185	NR	NR	30
31	NR	NR	NR	12 E	NR	NR	NR	NR	NR	187 *	NR	NR	31
AN	NR	NR	NR	NR	NR	NR	NR	NR	NR	154	NR	NR	MEAN
AX	NR	NR	NR	NR	NR	NR	NR	NR	NR	187	NR	NR	MAX
IN	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.0	NR	NR	MIN
FT	NR	NR	NR	NR	NR	NR	NR	NR	NR	9483	NR	NR	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation

of no flow made on this day

* - E and *

a - See note (a) below

MEAN	MAXIMUM				MINIMUM			
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	DISCHARGE	GAGE HT	MO	DAY

TOTAL
ACRE-Feet a 15500

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
36 04 18	119 05 48	SE30 21S 27E				DEC 42-DATE		1942		0.00	LOCAL

Station located 4.5 mi. W of Porterville, approximately 100 ft. below head. This is regulated diversion from Tule River. This station is operated under cooperative agreement between the Department of Water Resources and the Tule River Association.

(a) During periods of no record the recorder at this station was deactivated. This recorder was activated prior to anticipated diversion periods upon notification from the Tule River Association. It is assumed there was no flow during the "no record" periods.

TABLE B-58

DAILY MEAN DISCHARGE
KERN RIVER NEAR BAKERSFIELD

STATION NO.	WATER YEAR
C05150	1963

IN SECOND FEET													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	363	254	183	191	493	436	609	620	780	2203	2120	1233	1
2	378	254	183	192	429	440	603	664	714	2160	2061	1226	2
3	378	215	197	190	386	441	618	629	718	2192	2021	1280	3
4	386	216	220	195	384	439	668	669	735	2204	2005	1347	4
5	362	218	216	184	376	421	677	710	773	2199	1995	1124	5
6	337	213	210	195	381	437	684	740	831	2086	1936	975	6
7	382	210	216	192	377	460	723	888	867	2042	1982	900	7
8	388	205	201	193	379	432	687	953	940	2087	2002	849	8
9	385	203	202	188	385	440	721	1119	941	2062	1982	934	9
10	407	208	213	189	435	440	702	1011	970	2011	1950	1097	10
11	415	210	211	192	456	472	662	925	940	1998	1945	1081	11
12	465	206	219	194	453	513	644	882	761	1943	1885	1087	12
13	454	208	186	174	472	515	624	846	753	2002	1942	1060	13
14	428	210	191	153	463	533	641	801	869	2016	2011	1035	14
15	408	219	198	184	454	656	737	774	970	2007	2105	1031	15
16	417	210	211	188	454	634	770	781	1011	2026	2103	1028	16
17	411	202	222	182	447	599	665	792	1232	2012	2053	1012	17
18	417	204	218	175	457	573	625	803	1533	2044	2015	1036	18
19	416	195	209	179	453	579	620	813	1630	2054	1992	1047	19
20	415	194	211	178	458	578	635	809	1760	2015	1942	1149	20
21	407	210	180	180	453	577	645	887	1896	2017	1981	1154	21
22	380	216	189	187	445	587	624	1011	1927	2031	2029	1183	22
23	341	210	191	186	451	573	624	1044	1748	2022	1977	1237	23
24	339	203	189	177	456	574	624	1006	1959	2035	1808	1284	24
25	336	196	176	176	450	552	651	1082	2118	2076	1669	1281	25
26	299	195	136	177	449	555	647	1155	2157	2105	1762	1336	26
27	289	198	133	170	447	613	625	1191	2143	2176	1742	1365	27
28	268	200	161	178	445	681	624	1079	2150	2194	1738	1359	28
29	250	201	165	186		640	621	980	2277	2150	1648	1340	29
30	248	193	179	308		619	619	983	2262	2119	1655	1399	30
31	237		188	451		608		959		2099	1526		31
MEAN	368	209	194	197	435	536	654	891	1346	2077	1922	1149	MEAN
MAX	465	254	222	451	493	681	770	1191	2277	2204	2120	1399	MAX
MIN	237	193	133	153	376	421	603	620	714	1943	1526	849	MIN.
ACFT	22623	12448	11909	12067	24175	32959	38914	54756	80063	127710	118179	68368	ACFT

WATER YEAR SUMMARY

E - Estimated

NR - No Record

* - Discharge measurement or observation of no flow made on this day.

- E and *

MEAN		MAXIMUM				MINIMUM			
DISCHARGE		DISCHARGE	GAGE HT	MO	DAY	DISCHARGE	GAGE HT	MO	DAY
832		2323		6	30				

TOTAL
ACRE-Feet 604171

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
35 26 9	118 56 8	SW 2 29S 28E	36000	14.2	11-19-50	93-DATE					

Also known as "Kern River at First Point." Station located 5 mi. NE of Bakersfield. Tabulated discharge is the computed regulated flow and is computed from noon to noon beginning at noon of day shown. Records furnished by Kern County Land Company. Drainage area is 2,420 sq. mi.

DAILY MEAN GAGE HEIGHT
TULARE LAKE
IN FEET

STATION NO	WATER YEAR
C03110	1963

IN FEET													
DAY	OCT	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OAY
						D R Y							

CREST STAGES

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE

E - Estimated
NR - No Record
NF - No Flow

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R M D B B M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
30 03 10	119 49 35			196.8	6-28-41		FEB 37-DATE	1937		0.00	USCGS

Station located 2.2 mi. SW of Chatom Ranch, 6 mi. SW of Corcoran on south end of El Rico Bridge. Tulare Lake receives water from Kings, Kaweah, and Tule Rivers during high-water periods and occasionally from Kern River, Deer Creek, and several small intermittent streams. Elevation at lowest point of lake bed is now about 180 ft. U.S.G.S. datum. Records furnished by Tulare Lake Basin Water Storage District.

TABLE B-60

DAILY MEAN GAGE HEIGHT

SAN JOAQUIN RIVER BELOW FRIANT
IN FEET

STATION NO	WATER YEAR
807885	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	2.18	2.05	2.08	1.95	1.85	2.05	2.04	1.93	2.38	2.45	2.45	2.36	1
2	2.18	2.09	2.08	1.95	1.62	2.08	2.03	1.92	2.37	2.41	2.49	2.36	2
3	2.19	2.10	2.08	1.95	1.60	2.10	2.03	1.91	2.37	2.38	2.48	2.35	3
4	2.18	2.10	2.06	1.95	1.59	2.09	2.02	1.90	2.37	2.37	2.48	2.35	4
5	2.17	2.10	2.02	1.94	1.70	2.09	2.02	1.89	2.37	2.37	2.43	2.32	5
6	2.23	2.09	2.01	1.94	1.76	2.08	2.06	1.87	2.37	2.37	2.40	2.27	6
7	2.29	2.10	2.01	1.94	1.90	2.07	2.14	1.85	2.37	2.37	2.39	2.25	7
8	2.29	2.14	2.02	1.95	1.95	2.08	2.03	1.86	2.37	2.40	2.39	2.25	8
9	2.29	2.12	2.03	1.95	2.04	2.09	1.86	1.89	2.37	2.44	2.38	2.18	9
10	2.25	2.11	2.05	1.95	2.12	2.08	1.84	1.87	2.37	2.45	2.38	2.10	10
11	2.20	2.11	2.05	1.95	1.93	2.11	1.83	1.87	2.29	2.44	2.38	2.10	11
12	2.20	2.11	2.05	1.95	1.92	2.16	1.82	1.86	2.23	2.55	2.38	2.10	12
13	2.21	2.11	2.05	1.96	2.00	2.16	1.82	1.85	2.19	2.54	2.38	2.10	13
14	2.22	2.11	2.05	1.96	1.85	2.17	1.98	1.88	2.13	2.54	2.38	2.10	14
15	2.16	2.11	2.06	1.96	1.70	2.19	1.99	1.99	2.15	2.54	2.38	2.10	15
16	2.13	2.11	2.06	1.96	1.66	2.22	1.91	2.09	2.15	2.49	2.40	2.08	16
17	2.12	2.11	2.02	1.96	1.65	2.21	1.87	2.17	3.26	2.45	2.45	2.06	17
18	2.05	2.11	1.97	1.96	1.70	2.04	1.85	2.25	4.64	2.44	2.39	2.06	18
19	1.99	2.11	1.97	1.96	1.80	2.05	1.88	2.32	5.40	2.44	2.40	2.06	19
20	1.95	2.09	1.97	1.96	1.80	2.10	1.90	2.34	5.60	2.43	2.40	2.06	20
21	1.95	2.06	1.97	1.96	1.83	2.09	2.07	2.41	5.57	2.43	2.40	2.06	21
22	1.97	2.06	1.97	1.99	1.90	2.10	1.96	2.43	5.03	2.43	2.40	2.06	22
23	2.12	2.06	1.98	2.03	1.95	2.10	1.91	2.43	3.99	2.42	2.40	2.06	23
24	2.19	2.06	1.98	2.03	2.02	2.10	1.89	2.43	2.98	2.36	2.39	2.06	24
25	2.18	2.06	1.98	2.03	2.03	2.10	1.88	2.42	2.20	2.28	2.39	2.06	25
26	2.04	2.06	1.99	2.03	2.04	2.11	2.21	2.42	2.45	2.28	2.38	2.05	26
27	2.12	2.07	2.01	2.03	2.04	2.11	2.06	2.41	2.45	2.28	2.37	2.05	27
28	2.13	2.07	2.02	2.03	2.05	2.36	1.98	2.42	2.46	2.34	2.37	2.07	28
29	2.12	2.07	2.02	2.04		1.96	1.97	2.42	2.45	2.37	2.37	2.10	29
30	2.07	2.08	2.02	2.02		1.87	1.95	2.42	2.45	2.39	2.36	2.11	30
31	2.07		NR	2.00		1.93		NR		2.40	2.36		31

CREST STAGES

E - Estimated
NR - No Record
NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
6-20-63	1300	5.73									

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
36 59 04	119 43 24	SW7 11S 21E	77,200	23.8	12/11/37	OCT 07-DATE	OCT 07-DATE	1938	---	USGS

Station located 0.5 miles W of Friant Dam. Flow regulated by Millerton Lake.
Records furnished by U.S.G.S. Drainage area is 1,675 sq. mi.

TABLE B-61

DAILY MEAN GAGE HEIGHT
CHOWCHILLA RIVER NEAR RAYMOND
 IN FEET

STATION NO	WATER YEAR
B64200	1963

DAY	OCT.	NOV.	DEC.	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	NR	NR	NR	NR	78.19	NR	70.46	70.94	NR	NR	NR	NR	1
2	NR	NR	NR	NR	NR	NR	70.37	70.83	NR	NR	NR	NR	2
3	NR	NR	NR	NR	NR	NR	70.23	70.75	NR	NR	NR	NR	3
4	NR	NR	NR	NR	NR	NR	70.20	70.65	NR	NR	NR	NR	4
5	NR	NR	NR	NR	NR	NR	70.22	70.56	NR	NR	NR	NR	5
6	NR	NR	NR	NR	NR	NR	70.24	69.93	NR	NR	NR	NR	6
7	NR	NR	NR	NR	NR	NR	71.60	70.55	NR	NR	NR	NR	7
8	NR	NR	NR	NR	NR	NR	72.58	70.52	NR	NR	NR	NR	8
9	NR	NR	NR	NR	NR	NR	71.19	71.20	NR	NR	NR	NR	9
10	NR	NR	NR	NR	72.23	NR	70.95	70.69	NR	NR	NR	NR	10
11	NR	NR	NR	NR	70.98	NR	70.78	70.66	NR	NR	NR	NR	11
12	NR	NR	NR	NR	70.42	NR	70.71	70.61	NR	NR	NR	NR	12
13	NR	NR	NR	NR	71.18	NR	70.67	70.46	NR	NR	NR	NR	13
14	NR	NR	NR	NR	71.15	NR	72.78	70.41	NR	NR	NR	NR	14
15	NR	NR	NR	NR	70.41	NR	73.43	70.37	NR	NR	NR	NR	15
16	NR	NR	NR	NR	70.24	NR	72.11	70.29	NR	NR	NR	NR	16
17	NR	NR	NR	NR	70.09	70.13	71.55	70.43	NR	NR	NR	NR	17
18	NR	NR	NR	NR	70.00	70.13	71.27	70.17	NR	NR	NR	NR	18
19	NR	NR	NR	NR	NR	NR	71.55	70.12	NR	NR	NR	NR	19
20	NR	NR	NR	NR	NR	NR	71.97	70.06	NR	NR	NR	NR	20
21	NR	NR	NR	NR	NR	NR	73.33	NR	NR	NR	NR	NR	21
22	NR	NR	NR	NR	NR	NR	72.43	NR	NR	NR	NR	NR	22
23	NR	NR	NR	NR	NR	NR	72.02	NR	NR	NR	NR	NR	23
24	NR	NR	NR	NR	NR	70.85	71.70	NR	NR	NR	NR	NR	24
25	NR	NR	NR	NR	NR	70.07	71.49	NR	NR	NR	NR	NR	25
26	NR	NR	NR	NR	NR	69.83	72.14	NR	NR	NR	NR	NR	26
27	NR	NR	NR	NR	NR	69.68	71.82	NR	NR	NR	NR	NR	27
28	NR	NR	NR	NR	NR	71.65	NR	NR	NR	NR	NR	NR	28
29	NR	NR	NR	NR	NR	71.55	71.18	NR	NR	NR	NR	NR	29
30	NR	NR	NR	NR	NR	70.79	71.03	NR	NR	NR	NR	NR	30
31	NR	NR	NR	NR	NR	70.53	NR	NR	NR	NR	NR	NR	31

CREST STAGES

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
1-31-63	1850	83.2	2-13-63	1410	71.8	4-14-63	1100	78.6			
2-1-63	0600	83.9	3-28-63	1045	77.4	4-21-63	0100	75.1			
2-10-63	1125	74.3	4-7-63	2100	78.5						

E - Estimated
 NR - No Record
 NF - No Flow

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 15 36	119 56 42	SE 1 8S 22E	8497E	83.9	2-1-63	NOV 59-DATE	NOV 59-DATE	1959		0.00 USCGR

Station located 6.0 mi. NW of Raymond on Raymond Road. Elevation of station is approximately 600 ft. USCGR datum. This station was installed in cooperation with Madera County and Chowchilla Water District. It is a flood control warning station, equipped with a Stevens Surface Detector and Telemark. Low flows are not recorded. Prior to 1962, high flow records were insufficient for publication. Discharge measurements and partial flow records are available in DWR files. In order to machine process this station, the recorder datum was changed. To obtain true elevations add 500 feet to all of the above gage heights.

TABLE B-62

DAILY MEAN GAGE HEIGHT

SAN JOAQUIN RIVER ABOVE SAND SLOUGH NEAR EL NIDO

STATION NO	WATER YEAR
B07575	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OAY
1	NR	NR	NR	NR	NR	0.65	01.88	2.32	0.99	NF	NF	NF	1
2	NR	NR	NR	NR	4.69	0.61	01.52	2.11	0.87	NF	NF	NF	2
3	NR	NR	NR	NR	5.39	0.58	01.65	2.08	0.60	NF	NF	NF	3
4	NR	NR	NR	NR	4.41	0.61	02.10	2.01	0.45	NF	NF	NF	4
5	NR	NR	NR	NR	3.02	0.58	02.09	1.71	NF	NF	NF	NF	5
6	NR	NR	NR	NR	2.21	0.54	01.93	1.42	NF	NF	NF	NF	6
7	NR	NR	NR	NR	1.79	0.55	01.96	1.27	NF	NF	NF	NF	7
8	NR	NR	NR	0.78	1.77	0.58	01.97	1.42	NF	NF	NF	NF	8
9	NR	NR	NR	1.56	1.85	0.63	02.40	1.06	NF	NF	NF	NF	9
10	NR	NR	NR	1.85	2.02	0.65	03.23	0.92	NF	NF	NF	NF	10
11	NR	NR	NR	1.90	2.34	0.67	01.96	0.96	NF	NF	NF	NF	11
12	NR	NR	NR	1.81	3.30	0.57	01.65	2.25	NF	NF	NF	NF	12
13	NR	NR	NR	1.47	2.78	0.56	01.57	3.05	NF	NF	NF	NF	13
14	NR	NR	NR	1.24	2.24	0.60	01.41	3.16	NF	NF	NF	NF	14
15	NR	NR	NR	1.15	2.78	0.55	01.29	2.94	NF	NF	NF	NF	15
16	NR	NR	NR	1.11	2.79	0.55	02.52	2.82	NF	NF	NF	NF	16
17	NR	NR	NR	1.07	2.30	0.51	04.25	3.17	NF	NF	NF	NF	17
18	NR	NR	NR	1.04	1.98	0.49	03.51	3.03	NF	NF	NF	NF	18
19	NR	NR	NR	0.99	1.78	0.52	02.64	2.90	NF	NF	NF	NF	19
20	NR	NR	NR	0.91	1.66	0.55	02.36	2.64	NF	NF	NF	NF	20
21	NR	NR	NR	0.79	1.69	0.58	02.51	2.23	NF	NF	NF	NF	21
22	NR	NR	NR	0.65	1.45	0.63	03.31	1.78	NF	NF	NF	NF	22
23	NR	NR	NR	0.49	1.26	0.58	04.33	1.30	NF	NF	NF	NF	23
24	NR	NR	NR	NR	1.13	0.57	03.90	1.06	NF	NF	NF	NF	24
25	NR	NR	NR	NR	1.00	0.52	03.22	0.87	NF	NF	NF	NF	25
26	NR	NR	NR	NR	0.84	0.50	02.80	0.65	NF	NF	NF	NF	26
27	NR	NR	NR	NR	0.75	0.55	02.68	0.61	NF	NF	NF	NF	27
28	NR	NR	NR	NR	0.71	0.63	03.35	0.72	NF	NF	NF	NF	28
29	NR	NR	NR	NR	NR	0.61	03.11	0.84	NF	NF	NF	NF	29
30	NR	NR	NR	NR	NR	2.67	02.61	0.92	NF	NF	NF	NF	30
31	NR	NR	NR	NR	NR	2.48	NR	0.90	NF	NF	NF	NF	31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-2-63	1750	5.94	4-10-63	0430	4.36	5-14-63	0820	3.23			
2-12-63	1310	3.50	4-17-63	0950	4.40	5-17-63	1240	3.22			
3-30-63	1510	3.30	4-23-63	1410	4.36						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 06 36	120 35 24	NE31 9S 13E	2110	6.55	2/12/62	OCT 61-DATE	OCT 61-DATE	1961		0.00 USC&S

Station located 5 mi. NW of Santa Rita Bridge and 5 mi. W of El Nido. Flows sometimes affected by operation of control structures below station. During this period flows are not computed. Partial flow records and discharge measurement are available in the office of the San Joaquin Valley Branch of the Department of Water Resources. In order to machine process this station, the recorder datum was changed. To obtain true elevations add 100 feet to all of the above gage heights.

TABLE B-63

DAILY MEAN GAGE HEIGHT
SAN JOAQUIN RIVER NEAR STEVINSON
 IN FEET

STATION NO	WATER YEAR
807400	1963

DAY	OCT.	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	60.97	60.70	60.74	60.82	63.25	62.18	65.34	65.85	62.10	61.31	61.17	61.12	1
2	61.03	60.71	60.67	60.82	65.14	62.09	65.09	64.95	62.21	61.39	61.15	61.15	2
3	60.99	60.72	60.64	60.82	67.87	61.99	64.59	64.45	62.25	61.56	61.10	61.15	3
4	60.95	60.94	60.64	60.82	68.84	61.90	64.11	64.01	62.25	61.69	61.18	61.14	4
5	61.16	61.14	60.63	60.78	67.99	61.85	63.44	63.95	62.17	61.85	61.24	61.14	5
6	61.23	61.14	60.64	60.74	66.69	61.74	63.39	63.53	62.16	61.89	61.32	61.14	6
7	61.17	60.99	60.63	61.29	65.43	61.64	64.08	63.19	62.26	61.89	61.40	61.13	7
8	61.09	60.88	60.64	62.00	64.26	61.56	64.22	62.84	62.33	61.76	61.44	61.08	8
9	60.99	60.77	60.64	62.11	63.41	61.49	64.12	62.61	62.45	61.71	61.43	61.02	9
10	60.87	60.75	60.64	62.02	64.74	61.44	63.96	62.47	62.35	61.78	61.39	60.96	10
11	60.88	60.78	60.64	61.83	65.88	61.38	64.21	62.44	62.46	61.70	61.32	60.95	11
12	60.88	60.81	60.64	61.53	66.74	61.33	64.42	63.54	62.37	61.56	61.36	60.97	12
13	60.94	60.83	60.64	61.65	67.16	61.29	64.38	63.65	62.49	61.43	61.39	61.03	13
14	60.88	60.82	60.64	61.68	67.70	61.27	64.26	63.14	62.70	61.36	61.35	61.25	14
15	60.81	60.81	60.66	61.64	68.54	61.27	64.17	63.06	62.70	61.42	61.37	61.48	15
16	60.81	60.81	60.81	61.43	68.47	61.30	65.09	62.92	62.55	61.40	61.32	61.56	16
17	60.79	60.80	60.88	61.24	67.44	61.29	65.90	62.71	62.54	61.26	61.25	61.55	17
18	60.79	60.78	61.12	61.13	66.44	61.43	66.43	62.43	62.47	61.22	61.21	61.49	18
19	60.78	60.70	61.19	61.05	65.63	61.58	66.30	62.21	62.21	61.18	61.17	61.71	19
20	60.76	60.67	61.21	61.02	64.97	61.53	65.90	61.98	61.89	61.22	61.23	61.87	20
21	60.75	60.71	61.21	61.00	64.51	61.46	65.87	61.89	61.67	61.26	61.18	62.12	21
22	60.73	60.76	61.19	60.97	64.12	61.44	66.40	61.84	61.55	61.26	61.14	62.32	22
23	60.72	60.75	61.14	60.95	63.39	61.42	67.26	61.79	61.51	61.14	61.09	62.36	23
24	60.73	60.72	61.12	60.96	63.03	61.80	67.59	61.77	61.55	61.11	61.13	62.34	24
25	60.74	60.69	61.10	61.10	62.81	62.11	67.38	61.86	61.72	61.12	61.22	61.96	25
26	60.75	60.69	61.06	61.02	62.63	61.88	66.96	61.84	61.79	61.15	61.32	61.97	26
27	60.75	60.72	60.94	60.94	62.44	61.92	66.60	61.92	61.74	61.18	61.44	61.67	27
28	60.74	60.73	60.87	60.89	62.31	62.06	66.57	62.04	61.59	61.15	61.51	61.52	28
29	60.73	60.73	60.86	60.91	63.44	63.44	66.53	62.18	61.52	61.12	61.32	61.42	29
30	60.71	60.75	60.83	61.02	65.67	65.67	66.33	62.25	61.40	61.13	61.21	61.38	30
31	60.71		60.81	61.52	65.70	65.70		62.24		61.19			31

E - Estimated
 NR - No Record
 NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 4-63	1040	68.9	4-18-63	1800	66.6	6-14-64	2400	62.8			
2-16-63	0000	68.8	4-24-63	1600	67.6						
3-30-63	2120	66.1	5- 1-63	0000	66.2						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 17 42	120 51 00	26 7S 10E	6060	73.04	2-17-62	OCT 61-DATE	MAY 61-DATE	1961		0.00 USCGS

Station located on bridge 2.3 miles south of Stevinson on Lander Avenue.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Date		Description		Amount		Balance		Total	
Month	Day	Particulars	Debit	Credit	Debit	Credit	Debit	Credit	Debit
Jan	1	Balance forward							
Jan	2	By Cash		100		100			
Jan	3	To Cash	100		100				
Jan	4	By Cash		200		200			
Jan	5	To Cash	200		200				
Jan	6	By Cash		300		300			
Jan	7	To Cash	300		300				
Jan	8	By Cash		400		400			
Jan	9	To Cash	400		400				
Jan	10	By Cash		500		500			
Jan	11	To Cash	500		500				
Jan	12	By Cash		600		600			
Jan	13	To Cash	600		600				
Jan	14	By Cash		700		700			
Jan	15	To Cash	700		700				
Jan	16	By Cash		800		800			
Jan	17	To Cash	800		800				
Jan	18	By Cash		900		900			
Jan	19	To Cash	900		900				
Jan	20	By Cash		1000		1000			
Jan	21	To Cash	1000		1000				
Jan	22	By Cash		1100		1100			
Jan	23	To Cash	1100		1100				
Jan	24	By Cash		1200		1200			
Jan	25	To Cash	1200		1200				
Jan	26	By Cash		1300		1300			
Jan	27	To Cash	1300		1300				
Jan	28	By Cash		1400		1400			
Jan	29	To Cash	1400		1400				
Jan	30	By Cash		1500		1500			
Jan	31	To Cash	1500		1500				
Feb	1	By Cash		1600		1600			
Feb	2	To Cash	1600		1600				
Feb	3	By Cash		1700		1700			
Feb	4	To Cash	1700		1700				
Feb	5	By Cash		1800		1800			
Feb	6	To Cash	1800		1800				
Feb	7	By Cash		1900		1900			
Feb	8	To Cash	1900		1900				
Feb	9	By Cash		2000		2000			
Feb	10	To Cash	2000		2000				
Feb	11	By Cash		2100		2100			
Feb	12	To Cash	2100		2100				
Feb	13	By Cash		2200		2200			
Feb	14	To Cash	2200		2200				
Feb	15	By Cash		2300		2300			
Feb	16	To Cash	2300		2300				
Feb	17	By Cash		2400		2400			
Feb	18	To Cash	2400		2400				
Feb	19	By Cash		2500		2500			
Feb	20	To Cash	2500		2500				
Feb	21	By Cash		2600		2600			
Feb	22	To Cash	2600		2600				
Feb	23	By Cash		2700		2700			

[illegible]

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SECRET

Line	Estimated	Actual	Variance
1	100	100	0
2	200	200	0
3	300	300	0
4	400	400	0
5	500	500	0
6	600	600	0
7	700	700	0
8	800	800	0
9	900	900	0
10	1000	1000	0
11	1100	1100	0
12	1200	1200	0
13	1300	1300	0
14	1400	1400	0
15	1500	1500	0
16	1600	1600	0
17	1700	1700	0
18	1800	1800	0
19	1900	1900	0
20	2000	2000	0
21	2100	2100	0
22	2200	2200	0
23	2300	2300	0
24	2400	2400	0
25	2500	2500	0
26	2600	2600	0
27	2700	2700	0
28	2800	2800	0
29	2900	2900	0
30	3000	3000	0
31	3100	3100	0
32	3200	3200	0
33	3300	3300	0
34	3400	3400	0
35	3500	3500	0
36	3600	3600	0
37	3700	3700	0
38	3800	3800	0
39	3900	3900	0
40	4000	4000	0
41	4100	4100	0
42	4200	4200	0
43	4300	4300	0
44	4400	4400	0
45	4500	4500	0
46	4600	4600	0
47	4700	4700	0
48	4800	4800	0
49	4900	4900	0
50	5000	5000	0
51	5100	5100	0
52	5200	5200	0
53	5300	5300	0
54	5400	5400	0
55	5500	5500	0
56	5600	5600	0
57	5700	5700	0
58	5800	5800	0
59	5900	5900	0
60	6000	6000	0
61	6100	6100	0
62	6200	6200	0
63	6300	6300	0
64	6400	6400	0
65	6500	6500	0
66	6600	6600	0
67	6700	6700	0
68	6800	6800	0
69	6900	6900	0
70	7000	7000	0
71	7100	7100	0
72	7200	7200	0
73	7300	7300	0
74	7400	7400	0
75	7500	7500	0
76	7600	7600	0
77	7700	7700	0
78	7800	7800	0
79	7900	7900	0
80	8000	8000	0
81	8100	8100	0
82	8200	8200	0
83	8300	8300	0
84	8400	8400	0
85	8500	8500	0
86	8600	8600	0
87	8700	8700	0
88	8800	8800	0
89	8900	8900	0
90	9000	9000	0
91	9100	9100	0
92	9200	9200	0
93	9300	9300	0
94	9400	9400	0
95	9500	9500	0
96	9600	9600	0
97	9700	9700	0

[illegible][illegible][illegible]

TABLE B-64

DAILY MEAN GAGE HEIGHT

SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE

IN FEET

STATION NO	WATER YEAR
807375	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	54.59	54.51	54.55	NR	56.79	56.68	58.68	59.26	57.10	55.45	55.15	55.10	1
2	54.78	54.53	54.52	NR	57.82	56.55	58.56	58.57	57.06	55.46	55.06	55.12	2
3	54.71	54.43	54.51	NR	59.88	56.42	58.18	58.05	57.11	55.56	55.09	55.17	3
4	54.58	54.37	54.47	NR	61.36	56.28	57.83	57.69	57.15	55.71	55.25	55.22	4
5	54.54	54.53	54.37	NR	61.28	56.19	57.37	57.43	57.24	55.80	55.37	55.27	5
6	54.68	54.53	54.23	NR	60.20	56.08	57.21	57.23	56.65	55.84	55.42	55.29	6
7	54.70	54.46	54.16	NR	59.20	55.95	57.57	56.88	56.40	55.84	55.20	55.42	7
8	54.66	54.38	54.09	NR	58.22	55.86	57.82	56.86	56.35	55.84	55.07	55.28	8
9	54.62	54.32	NR	NR	57.58	55.88	57.72	56.46	56.31	55.76	55.06	55.23	9
10	54.38	54.41	NR	NR	58.27	55.96	57.61	56.46	56.29	55.71	55.28	54.98	10
11	54.29	54.46	NR	NR	59.30	56.01	57.76	57.50	56.32	55.63	55.26	54.94	11
12	54.29	54.57	NR	NR	60.10	56.02	57.94	58.11	56.25	55.56	55.27	55.04	12
13	54.27	54.60	NR	NR	60.68	55.93	57.92	58.26	56.26	55.36	55.46	55.18	13
14	54.46	54.62	NR	NR	61.12	55.90	57.81	57.64	56.44	55.28	55.37	55.38	14
15	54.38	54.61	NR	NR	61.74	55.95	57.64	57.07	56.55	55.38	55.26	55.57	15
16	54.33	54.60	NR	NR	61.98	55.90	57.93	56.86	56.47	55.43	55.18	55.63	16
17	54.27	54.60	NR	NR	61.52	55.79	58.70	56.69	56.39	55.31	55.12	55.59	17
18	54.24	54.63	NR	NR	60.68	55.86	59.23	56.58	56.38	55.14	55.13	55.56	18
19	54.28	54.60	NR	NR	59.84	55.95	59.38	56.90	56.52	55.10	55.13	55.67	19
20	54.21	54.59	NR	NR	59.17	55.99	59.04	57.18	56.49	55.10	55.13	55.70	20
21	54.17	54.59	NR	NR	58.69	55.85	58.94	57.38	56.17	55.13	55.17	55.74	21
22	54.17	54.61	NR	NR	58.35	55.84	59.18	57.59	55.96	55.18	55.14	55.84	22
23	54.18	54.63	NR	NR	57.89	55.99	59.92	57.65	55.75	55.09	55.00	55.82	23
24	54.17	54.67	NR	NR	57.51	56.10	60.47	57.74	55.58	55.00	55.11	55.71	24
25	54.22	54.70	NR	NR	57.32	56.33	60.52	57.77	55.57	55.02	55.26	55.59	25
26	54.28	54.68	NR	NR	57.12	56.34	60.21	57.30	55.71	55.04	55.29	55.48	26
27	54.40	54.62	NR	NR	56.95	56.34	59.88	56.83	55.70	55.06	55.35	55.36	27
28	54.43	54.55	NR	NR	56.79	56.43	59.81	57.26	55.66	55.00	55.51	55.22	28
29	54.43	54.57	NR	NR		56.85	59.78	57.79	55.54	55.18	55.38	55.11	29
30	54.54	54.57	NR	NR		58.30	59.65	57.64	55.51	55.28	55.24	55.06	30
31	54.53		NR	NR		59.02		57.33		55.27	55.23		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-3-63	2400	60.92	2-6-63	1200	60.32	2-14-63	2400	61.47	2-17-63	1200	61.55
2-4-63	2400	61.53	2-12-63	2400	60.43	2-15-63	2400	61.98			
2-5-63	1200	61.32	2-13-63	2400	60.85	2-16-63	0900	62.04			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 18 35	120 55 45		5910	71.14	4-6-58	FEB 37-DATE	APR 37-DATE	1944 1957 1959	1957 1959	-3.73 -3.77 0.00	USCGS USCGS USCGS

Station located 30 ft. below Fremont Ford Bridge, 4.5 mi. W of Stevenson, 6.7 mi. above the Merced River. During periods of high flow, some water bypasses station through Mud Slough. Maximum discharge of record is for period 1944 to date. Records furnished by U.S.G.S. Drainage area is approx. 8,090 sq. mi. Flow records are published in U.S.G.S. report, "Surface Water Records of California."

TABLE B-65

DAILY MEAN GAGE HEIGHT
MERCED RIVER BELOW SNELLING
 IN FEET

STATION NO	WATER YEAR
B05170	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	5.67	4.95	4.88	4.95	6.46	9.29	08.26	8.27	10.90	6.27	5.94	5.79	1
2	5.11	4.92	4.89	4.96	5.74	7.09	08.25	8.28	10.92	6.31	5.94	5.84	2
3	4.95	4.95	4.89	4.94	5.51	5.80	08.27	8.26	11.22	6.35	5.94	5.76	3
4	4.90	5.01	4.94	4.92	5.44	5.69	08.24	8.25	10.97	6.43	5.95	5.75	4
5	4.87	5.02	4.93	4.97	5.43	5.61	08.19	8.07	9.75	6.32	5.94	5.78	5
6	4.89	5.02	4.93	5.06	7.55	5.58	08.43	7.59	9.73	5.94	5.87	5.81	6
7	4.94	5.03	4.92	5.14	7.36	5.55	08.60	7.87	9.41	5.84	5.85	5.75	7
8	4.93	5.02	4.90	5.14	9.21	5.62	08.43	9.24	8.67	5.87	5.94	5.73	8
9	4.90	5.00	4.93	5.15	9.33	6.02	08.25	11.02	8.94	5.84	5.92	5.79	9
10	4.87	5.00	4.91	5.15	9.46	6.07	07.82	12.33	8.52	5.83	5.93	5.74	10
11	4.87	4.99	4.93	5.14	9.31	5.90	07.79	11.85	6.73	5.88	5.95	5.73	11
12	4.88	4.97	4.94	5.14	9.31	5.79	07.82	11.45	6.54	5.89	5.95	5.69	12
13	4.91	4.96	4.91	5.16	9.59	5.73	07.81	10.10	6.44	5.86	5.95	5.84	13
14	5.01	4.93	4.95	5.14	9.38	5.74	08.14	9.20	6.43	5.86	5.97	5.78	14
15	5.00	4.90	5.23	5.15	9.35	5.75	08.15	8.98	6.40	5.87	5.99	5.78	15
16	5.06	4.90	5.45	5.17	9.32	5.74	08.09	9.11	7.82	5.88	5.95	5.79	16
17	5.08	4.90	5.33	5.19	9.32	5.77	07.93	10.52	10.92	5.93	5.97	5.80	17
18	5.06	4.91	5.21	5.20	9.30	5.81	08.22	11.51	10.85	6.02	5.96	5.90	18
19	4.99	4.93	5.15	5.26	9.31	5.72	08.44	11.65	10.86	6.06	5.87	5.86	19
20	5.03	4.92	5.14	5.30	9.30	5.64	08.35	11.82	10.26	6.03	5.85	5.75	20
21	5.02	4.91	5.12	5.30	9.30	5.58	08.33	11.86	10.18	6.04	5.71	5.73	21
22	5.00	4.91	5.11	5.30	9.30	5.55	08.21	11.92	9.18	6.06	5.83	5.74	22
23	5.00	4.91	5.10	5.32	9.28	5.51	08.24	11.99	8.44	6.09	5.86	5.74	23
24	4.97	4.91	5.10	5.32	9.28	5.51	08.08	11.91	8.18	6.11	5.89	5.76	24
25	4.96	4.93	5.08	5.32	9.28	5.49	09.13	10.88	7.40	6.08	5.88	5.62	25
26	4.97	4.93	5.03	5.34	9.28	5.51	09.47	10.81	6.89	6.08	5.84	5.58	26
27	4.95	4.97	4.98	5.33	9.27	5.53	09.30	11.57	7.16	6.01	5.85	5.54	27
28	4.94	4.92	4.95	5.32	9.28	6.61	09.09	11.80	7.45	5.99	5.76	5.55	28
29	4.95	4.89	4.94	5.33		8.70	08.74	11.08	7.31	5.99	5.75	5.51	29
30	4.93	4.89	4.96	5.43		8.51	08.61	10.93	6.58	6.03	5.78	5.51	30
31	4.95		4.96	5.97		8.27		10.75		6.00	5.77		31

E - Estimated
 NR - No Record
 NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-10-63	0300	9.9	5-10-63	0510	12.5	6-10-63	1030	9.7			
3-1-63	1920	9.3	5-23-63	1850	12.0	6-17-63	1130	11.4			
4-26-63	1640	9.6	6-4-63	0210	11.4						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 30 06	120 27 03	NEL7 5S 14E	4910	12.51	5-10-63	NOV 58-DATE	NOV 58-DATE	1958		0.00 LOCAL

Station located 0.2 mi. below Merced-Snellings Highway Bridge, 1.4 mi. SW of Snelling. Flow regulated by Exchequer power plant and Lake McClure. Prior to November 1958, records available for a site 3.6 mi. downstream.

TABLE B-66

DAILY MEAN GAGE HEIGHT

MERCED RIVER AT CRESSEY
IN FEET

STATION NO	WATER YEAR
B05155	1963

DAY	OCT.	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	11.32	10.82	10.43	10.49	12.03	14.94	13.78	13.98	17.03	11.13	10.29	10.40	1
2	11.34	10.82	10.43	10.49	12.33	14.47	13.80	13.82	17.13	10.75	10.33	10.43	2
3	11.23	10.83	10.43	10.50	11.38	11.90	13.80	13.78	17.34	10.82	10.35	10.42	3
4	11.13	10.83	10.40	10.49	11.02	11.20	13.82	13.75	17.69	10.93	10.39	10.46	4
5	11.05	10.83	10.43	10.48	10.84	10.83	13.72	13.72	16.07	10.98	10.46	10.46	5
6	11.00	10.82	10.44	10.48	10.66	10.80	13.80	13.33	15.42	10.96E	10.39	10.46	6
7	10.97	10.81	10.44	10.49	13.61	10.76	14.21	12.70	15.44	10.74E	10.29	10.41	7
8	10.94	10.82	10.45	10.51	13.23	10.66	14.19	14.07	14.57	10.51	10.16	10.39	8
9	10.94	10.83	10.54	10.50	14.86	10.64	13.84	15.36	13.87	10.33	10.17	10.40	9
10	10.92	10.83	10.52	10.50E	16.24	10.71	13.55	19.32	15.02	10.29	10.25	10.40	10
11	10.94	10.84	10.47	10.50E	15.42	10.89	13.31	18.97	12.76	10.30	10.35	10.42	11
12	10.93	10.82	10.47	10.50E	15.20	10.85	13.25	18.34	11.76	10.25	10.39	10.36	12
13	10.94	10.82	10.46	10.49E	16.00	10.73	13.24	17.11	11.45	10.23	10.23	10.49	13
14	10.94	10.82	10.46	10.49E	16.50	10.67	13.35	15.18	11.27	10.24	10.19	10.49	14
15	10.94	10.83	10.46	10.48E	15.37	10.69	13.73	14.81	11.10	10.29	10.20	10.56	15
16	10.94	10.82	10.69	10.48E	15.23	10.72	13.77	14.60	11.08	10.30	10.27	10.55	16
17	10.92	10.79	10.86	10.47E	15.16	10.80	13.71	15.35	15.22	10.26	10.32	10.61	17
18	10.91	10.80	10.85	10.47	15.13	10.77	13.57	17.81	16.97	10.27	10.41	10.62	18
19	10.89	10.80	10.77	10.48	15.09	10.75	13.81	18.22	17.04	10.16	10.41	10.69	19
20	10.88	10.78	10.67	10.49	15.07	10.69	13.98	18.50	16.38	10.32	10.32	10.81	20
21	10.87	10.79	10.62	10.49	15.05	10.65	14.42	18.66	16.06E	10.37	10.28	10.84	21
22	10.86	10.79	10.60	10.49	15.03	10.64	14.14	18.67	15.52E	10.41	10.30	10.78	22
23	10.85	10.45	10.58	10.49	15.00	10.65	13.98	18.83	15.04E	10.45	10.33	10.76	23
24	10.85	10.44	10.62	10.49	14.96	10.59	14.14	18.82	14.39E	10.43	10.36	10.80	24
25	10.86	10.44	10.56	10.44	14.95	10.54	14.68	17.99	13.80E	10.37	10.44	10.81	25
26	10.88	10.45	10.56	10.54	14.96	10.53	15.08	16.85	12.69E	10.37	10.45	10.81	26
27	10.87	10.47	10.44	10.63	14.96	10.54	15.20	17.64	11.83E	10.40	10.54	10.75	27
28	10.87	10.44	10.54	10.51	14.95	10.74	14.96	18.53	12.04	10.34	10.41	10.73	28
29	11.02	10.43	10.53	10.48		12.98	14.64	17.98	12.31	10.34	10.29	10.72	29
30	10.83	10.43	10.54	10.47		14.24	14.27	17.24	11.88	10.30	10.26	10.66	30
31	10.84		10.51	10.78		13.83		17.01		10.32	10.30		31

CREST STAGES

E - Estimated
NR - No Record
NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-10-63	1520	17.8	4-26-63	2400	15.3	5-28-63	0530	18.6			
2-14-63	0430	17.8	5-10-63	1430	19.6	6-4-63	0320	17.8			
3-1-63	0910	15.0	5-26-63	0415	18.9	6-18-63	0200	17.4			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 25 28	120 39 47	SW 9 6S 12E	34400	22.67	12-4-50	JUL 41-DEC 41 JUL 42-DATE	APR 41- DATE	1950		96.24 USCGS

Station located 150 ft. below McSwain Bridge, immediately N of Cressey. Prior to May 20, 1960, station located 250 ft. upstream.

TABLE B-67

DAILY MEAN GAGE HEIGHT
MERCED RIVER NEAR LIVINGSTON
 IN FEET

STATION NO	WATER YEAR
805138	1963

DAY	OCT.	NOV.	DEC.	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	1.59	1.14	1.11	1.25E	1.90	7.42	05.52	6.37	11.11	3.19	1.50	1.66	1
2	1.57	1.11	1.12	1.24E	3.67	7.24	05.39	5.89	11.34	2.57	1.47	1.57	2
3	1.57	1.10	1.11	1.22	2.56	4.55	05.50	5.79	11.42	2.47	1.63	1.30	3
4	1.59	1.15	1.08	1.22	2.00	3.23	05.64	5.64	12.02	2.51	1.82	1.29	4
5	1.41	1.13	1.10	1.25E	1.77	2.83	05.54	5.55	10.54	2.60	1.69	1.39	5
6	1.34	1.13	1.12	1.25E	1.60	2.55	05.58	5.21	8.80	2.61	1.62	1.49	6
7	1.31	1.12	1.12	1.25E	3.50	2.45	06.06	4.53	8.81	2.32	1.47	1.53	7
8	1.28	1.09	1.11	1.25E	4.28	2.30	06.17	5.17	7.83	2.23	1.58	1.42	8
9	1.25	1.06	1.17	1.24E	6.54	2.20	05.89	7.20	6.60	2.08	1.44	1.39	9
10	1.26	1.07	1.22	1.24E	8.45	2.15	05.66	12.62	7.67	1.77	1.58	1.25	10
11	1.26	1.12	1.19	1.24E	8.54	2.24	05.10	13.89	6.12	1.65	1.56	1.30	11
12	1.26	1.07	1.18	1.24E	7.62	2.29	05.02	13.16	4.30	1.60	1.62	1.22	12
13	1.26	1.03	1.17	1.24E	8.30	2.11	05.00	11.89	3.77	1.56	1.44	1.49	13
14	1.29	1.04	1.16	1.23E	10.13	2.05	05.07	8.99	3.45	1.55	1.39	1.61	14
15	1.28	1.07	1.22E	1.23E	8.12	2.07	05.44	7.87	3.33	1.61	1.34	1.54	15
16	1.28	1.07	1.32E	1.23E	7.74	2.35	05.60	7.50	3.27	1.62	1.23	1.51	16
17	1.25	1.08	1.44E	1.23E	7.61	2.51	05.50	7.79	5.95	1.53	1.31	1.55	17
18	1.21	1.13	1.52E	1.24	7.56	2.12	05.21	11.02	10.77	1.43	1.56	1.77	18
19	1.23	1.07	1.48	1.25	7.53	2.08	05.69	12.40	10.91	1.44	1.59	1.77	19
20	1.23	1.07	1.39	1.26	7.49	2.05	06.11	12.85	10.39	1.38	1.56	1.87	20
21	1.21	1.07	1.39E	1.26	7.52	2.10	06.37	13.15	9.45	1.65	1.34	1.89	21
22	1.18	1.13	1.38E	1.26	7.52	2.02	06.67	13.25	8.97	1.58	1.25	1.83	22
23	1.18	1.07	1.37E	1.25	7.49	2.07	06.09	13.46	7.34	1.54	1.29	1.70	23
24	1.18	1.04	1.36E	1.24	7.48	1.94	06.09	13.57	6.34	1.51	1.21	1.70	24
25	1.19	1.11	1.35E	1.23	7.46	1.88	07.00	12.92	5.78	1.50	1.57	1.70	25
26	1.20	1.12	1.34E	1.19	7.47	1.85	07.54	11.02	4.69	1.57	1.68	1.60	26
27	1.20	1.09	1.33E	1.37	7.46	1.87	07.95	11.52	3.79	1.61	1.50	1.48	27
28	1.20	1.09	1.32E	1.33	7.44	2.22	07.69	13.05	3.80	1.60	1.49	1.43	28
29	1.17	1.10	1.31E	1.28	3.18	07.27	12.92	4.12	1.67	1.60	1.40	1.58	29
30	1.15	1.10	1.31E	1.25	5.96	06.67	11.52	3.97	1.52	1.48	1.23	1.76	30
31	1.17		1.30E	1.34		5.81		11.25		1.48	1.43		31

E - Estimated
 NR - No Record
 NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-10-63	2110	10.2	4-28-63	0800	8.0	5-29-63	0550	13.3			
2-14-63	0945	11.1	5-10-63	2400	14.3	6-4-63	1020	12.2			
4-21-63	2100	7.3	5-24-63	0630	13.7	6-18-63	0850	11.2			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE				FROM	TO	
37 23 18	120 47 35	NW29 6S 11E	11100	21.44	2-12-38	MAR 22-SEP 24 OCT 25-FEB 44	JAN 51-JAN 60 APR 62-DATE		1962	DATE	79.5 USGS

Station located 4.5 mi. W of Livingston and 9.5 mi. upstream from mouth. Early discharge records, 1922-44, available in U.S.G.S. Water Supply Papers. Stage records from 1951-1960 were not published, available from D.W.R., State of California. Station reactivated April 1, 1962 for stage only. Drainage area, 1,259 sq. mi.

TABLE B-68

DAILY MEAN GAGE HEIGHT

SAN JOAQUIN RIVER NEAR NEWMAN
IN FEET

STATION NO	WATER YEAR
B07300	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	48.88	48.78	NR	49.20	51.50	53.58	53.38	54.33	55.67	50.77	NR	49.32	1
2	48.90	48.77	NR	49.20	51.67	53.50	53.21	53.75	55.72	50.41	NR	49.44	2
3	48.93	48.72	NR	49.22	52.92	52.77	53.08	53.26	55.79	50.31	NR	49.38	3
4	48.91	48.65	NR	49.20	54.00	51.46	52.94	52.98	55.93	50.32	NR	49.39	4
5	48.82	48.68	48.58	49.18	54.31	50.95	52.61	52.74	55.91	50.39	NR	49.42	5
6	48.80	48.70	48.52	49.18	53.73	50.67	52.43	52.54	56.73	50.42	NR	49.44	6
7	48.87	48.73	48.49	49.38	52.86	50.46	52.83	52.13	54.22	50.39	NR	49.59	7
8	48.72	48.77	48.47	49.71	52.96	50.31	53.20	51.81	53.96	50.26	49.42	49.49	8
9	48.73	48.73	48.47	49.95	52.88	50.20	53.15	52.65	53.27	50.16	49.36	49.49	9
10	48.67	48.78	48.48	49.99	54.13	50.16	52.93	54.33	53.03	50.02	49.48	49.32	10
11	48.60	48.82	48.68	49.97	55.50	50.14	52.81	56.72	53.33	49.84	49.63	49.31	11
12	48.63	48.86	48.71	49.89	55.53	50.17	52.94	57.02	51.89	49.78	49.58	49.31	12
13	48.68	NR	48.77	49.77	55.91	50.03	52.91	56.86	51.37	49.68	49.66	49.43	13
14	48.78	NR	48.72	49.75	56.80	49.81	52.84	55.68	51.21	49.59	49.50	49.62	14
15	48.79	NR	48.67	49.72	56.96	49.87	52.84	54.22	51.16	49.58	49.42	49.68	15
16	48.75	NR	48.77	49.64	56.84	50.08	53.01	53.73	51.13	49.60	49.37	49.76	16
17	48.60	NR	49.08	49.55	56.67	50.17	53.29	53.44	51.20	49.54	49.33	49.71	17
18	48.48	NR	49.35	49.45	56.15	50.07	53.58	54.36	54.07	49.42	49.26	49.75	18
19	48.45	NR	49.56	49.37	55.60	50.02	53.81	55.82	55.01	49.39	49.38	49.73	19
20	48.40	NR	49.65	49.33	55.14	50.01	53.85	56.32	55.25	49.38	49.33	49.78	20
21	48.39	NR	49.64	49.31	54.81	49.89	53.82	56.60	54.65	49.42	49.34	49.93	21
22	48.40	NR	49.58	49.30	54.59	49.92	54.16	56.79	54.35	49.55	49.27	50.01	22
23	48.49	NR	49.52	49.25	54.34	50.07	54.34	56.89	53.65	49.42	49.18	50.02	23
24	48.53	NR	49.44	49.22	54.13	50.12	54.64	57.02	52.87	49.28	49.23	49.88	24
25	48.58	NR	49.39	49.19	54.00	50.19	54.96	56.99	52.33	49.32	49.39	49.83	25
26	48.70	NR	49.32	49.18	53.26	50.21	55.14	56.20	51.87	49.34	49.61	49.77	26
27	48.79	NR	49.29	49.15	53.75	50.18	55.22	55.61	51.17	49.43	49.49	49.63	27
28	48.86	NR	49.18	49.19	53.65	50.30	55.21	56.27	50.83	NR	49.58	49.58	28
29	48.84	NR	49.16	49.22	50.58	55.04	56.85	50.90	NR	NR	49.50	49.46	29
30	48.84	NR	49.13	49.31	52.27	54.73	56.38	51.01	NR	NR	49.35	49.54	30
31	48.82		49.14	49.65	53.54		55.91		NR	NR	49.36		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES								
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-5-63	0600	54.38	3-31-63	1400	53.62	5-24-64	1400	57.05
2-11-63	1000	55.68	4-27-63	1200	55.25			
2-14-63	2100	57.17	5-12-63	2000	57.04			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 21 02	120 58 34	SW 3 7S 9E	33000	18.50	3-7-38	APR 12-DATE	APR 12-DATE	1912	1959	47.24 47.31 0.00 USCGS USCGS

Station located at bridge on Hills Ferry Road, 300 ft. below the Merced River, 3.5 mi. NE of Newman.
Records furn. by U.S.G.S. Drainage area is 9,990 sq. mi. Flow records are published in the
U.S.G.S. report, "Surface Water Records of California."

TABLE B-69

DAILY MEAN GAGE HEIGHT
SAN JOAQUIN RIVER AT CROWS LANDING BRIDGE
 IN FEET

STATION NO	WATER YEAR
807250	1963

DAY	OCT.	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	38.80	38.53	38.34	38.82	43.51	43.45	43.40	44.64	45.95	40.70	39.15	38.91	1
2	38.78	38.47	38.35	38.82	42.06	43.37	43.17	44.03	45.85	40.32	39.04	39.11	2
3	38.77	38.44	38.32	38.83	42.42	43.03	43.14	43.38	45.92	40.16	38.97	39.03	3
4	38.77	38.36	38.29	38.86	43.32	41.77	43.05	43.01	45.97	40.10	39.04	38.97	4
5	38.78	38.34	38.24	38.82	43.92	41.06	42.69	42.72	46.19	40.25	39.33	39.06	5
6	38.68	38.36	38.20	38.83	43.67	40.71	42.45	42.57	45.29	40.17	39.30	39.12	6
7	38.66	38.37	38.15	38.91	42.93	40.44	43.03	42.22	44.40	40.26	39.17	39.27	7
8	38.60	38.39	38.11	39.24	42.73	40.23	43.39	41.79	44.09	40.16	39.07	39.27	8
9	38.46	38.42	38.17	39.52	42.58	40.08	43.34	42.23	43.52	39.99	39.07	39.33	9
10	38.44	38.42	38.17	39.64	43.57	39.99	43.10	43.26	43.05	39.76	39.12	39.13	10
11	38.37	38.46	38.12	39.65	44.95	39.98	42.97	45.91	43.45	39.59	39.35	38.96	11
12	38.53	38.51	38.21	39.57	45.31	39.96	43.04	46.99	42.40	39.49	39.30	38.99	12
13	38.64	38.50	38.42	39.47	45.98	39.86	43.06	47.13	41.59	39.42	39.31	39.08	13
14	38.62	38.52	38.38	39.43	47.00	39.63	43.07	46.40	41.23	39.39	39.25	39.27	14
15	38.75	38.55	38.35	39.41	47.39	39.56	42.96	44.72	41.05	39.40	39.18	39.34	15
16	38.74	38.54	38.42	39.35	47.19	39.85	43.06	43.87	41.00	39.40	39.11	39.40	16
17	38.48	38.54	38.63	39.24	47.02	40.15	43.32	43.48	40.90	39.36	39.17	39.36	17
18	38.31	38.57	38.60	39.15	46.48	39.95	42.61	43.84	42.86	39.24	39.08	39.37	18
19	38.22	38.53	38.13	39.05	45.84	39.78	43.83	45.31	44.57	39.09	39.17	39.42	19
20	38.17	38.49	38.27	38.97	45.27	39.77	44.00	46.10	45.01	39.04	39.01	39.44	20
21	38.14	38.49	39.30	38.94	44.87	39.72	44.10	46.53	44.71	39.10	39.01	39.60	21
22	38.13	38.44	39.24	38.92	44.60	39.77	44.28	46.89	44.28	39.25	39.00	39.66	22
23	38.18	38.41	39.20	38.90	44.33	40.01	44.51	47.07	43.84	39.14	38.91	39.70	23
24	38.23	38.40	39.14	38.86	44.09	40.07	44.73	47.23	43.06	38.98	38.86	39.57	24
25	38.27	38.38	39.06	38.82	43.92	40.19	44.96	47.37	42.43	39.05	39.00	39.46	25
26	38.36	38.39	38.99	38.79	43.80	40.14	45.31	46.97	41.96	39.05	39.13	39.43	26
27	38.45	38.40	38.91	38.76	43.67	40.08	45.41	45.99	41.26	39.04	39.14	39.29	27
28	38.56	38.36	38.86	38.76	43.54	40.29	45.46	46.19	40.74	39.01	39.12	39.26	28
29	38.59	38.37	38.87	38.79	40.77	40.77	45.34	46.99	40.74	39.09	39.18	39.11	29
30	38.60	38.34	38.79	38.88	41.59	41.59	45.10	46.95	40.84	39.12	39.02	39.11	30
31	38.59		38.79	39.46		43.13		46.27		39.21	38.99		31

E - Estimated
 NR - No Record
 NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 1-63	0015	44.3	4- 1-63	0300	43.5	5-25-63	1230	47.4	6- 5-63	1250	46.3
2- 5-63	1240	44.1	4- 8-63	0840	43.5	5-13-63	0850	47.3	6-20-63	1310	45.2
2-15-63	0610	47.5	4-28-63	0430	45.5	5-30-63	0050	47.2			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM TO	ZERO ON GAGE	REF DATUM	
			C.F.S.	GAGE HT.	DATE						
37 26 52	121 00 44	NW 8 6S 9E		61.9	4- 7-58		41-DATE	1959 1959	0.00 0.00 3.51	USED USGS USED	

Station located at Crows Landing Road Bridge, 4.3 mi. NE of Crows Landing.

TABLE B-70

DAILY MEAN GAGE HEIGHT

SAN JOAQUIN RIVER AT PATTERSON BRIDGE

STATION NO	WATER YEAR
B07200	1963

IN FEET													
O&Y	OCT.	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	32.85	32.30	32.02	32.42	36.27	37.16	37.14	38.69	39.83	34.38	32.54	32.78	1
2	32.79	32.25	32.00	32.42	36.02	37.07	36.95	38.09	39.66	34.04	32.51	32.83	2
3	32.79	32.22	31.98	32.43	35.78	36.84	36.96	37.40	39.67	33.86	32.46	32.78	3
4	32.87	32.16	31.99	32.44	36.67	35.79	36.89	36.91	39.67	33.83	32.54	32.66	4
5	32.82	32.12	31.97	32.42	37.52	34.93	36.51	36.63	39.83	33.90	32.81	32.86	5
6	32.76	32.14	31.94	32.41	37.55	34.48	36.24	36.43	39.35	33.80	32.82	32.86	6
7	32.68	32.15	31.85	32.44	36.89	34.20	36.76	36.14	38.33	33.88	32.70	32.99	7
8	32.65	32.15	31.79	32.69	36.34	33.93	37.28	35.65	37.91	33.98	32.63	33.02	8
9	32.51	32.17	31.74	32.98	36.23	33.77	37.28	35.75	37.47	33.66	32.62	33.10	9
10	32.47	32.18	31.76	33.15	36.98	33.65	37.11	36.55	36.89	33.42	32.70	33.07	10
11	32.49	32.22	31.81	33.17	38.31	33.64	36.92	38.81	37.15	33.21	33.00	32.87	11
12	32.63	32.21	31.87	33.15	39.06	33.51	36.93	40.35	36.53	33.14	32.90	32.79	12
13	32.80	32.25	32.05	33.05	39.48	33.29	36.99	40.75	35.49	33.03	32.80	33.04	13
14	32.72	32.25	32.05	33.00	40.58	33.01	37.00	40.39	34.93	33.06	32.86	33.10	14
15	32.91	32.28	32.02	32.98	41.17	32.84	36.91	38.90	34.69	33.01	32.80	33.18	15
16	33.06	32.27	32.07	32.94	41.07	33.14	36.98	37.67	34.68	32.93	32.69	33.23	16
17	32.58	32.27	32.19	32.86	40.89	33.71	37.17	37.13	34.51	32.97	32.62	33.11	17
18	32.34	32.28	32.43	32.76	40.55	33.58	37.43	37.13	35.41	32.90	32.60	33.06	18
19	32.21	32.26	32.65	32.66	39.93	33.40	37.69	38.45	37.66	32.82	32.59	33.19	19
20	32.14	32.26	32.83	32.57	39.32	33.37	37.91	39.42	38.32	32.76	32.53	33.18	20
21	32.07	32.24	32.89	32.55	38.82	33.29	38.07	39.94	38.33	32.69	32.43	33.28	21
22	32.04	32.22	32.88	32.54	38.51	33.31	38.17	40.31	37.93	32.85	32.55	33.45	22
23	32.03	32.15	32.83	32.53	38.22	33.65	38.41	40.57	37.62	32.84	32.53	33.47	23
24	32.05	32.11	32.78	32.49	37.95	33.78	38.61	40.75	36.89	32.70	32.45	33.45	24
25	32.09	32.13	32.70	32.45	37.73	33.83	38.83	40.89	36.14	32.50	32.53	33.28	25
26	32.11	32.11	32.65	32.42	37.56	33.84	39.15	40.81	35.52	32.47	32.70	33.18	26
27	32.19	32.11	32.59	32.38	37.42	33.78	39.31	40.03	34.92	32.43	32.63	33.09	27
28	32.30	32.07	32.51	32.37	37.27	34.02	39.40	39.77	34.36	32.53	32.60	32.96	28
29	32.32	32.03	32.46	32.39		34.41	39.31	40.42	34.30	32.63	32.78	32.98	29
30	32.33	32.03	32.43	32.48		35.09	39.12	40.69	34.45	32.56	32.73	33.01	30
31	32.33		32.42	32.79		36.53		40.21		32.53	32.74		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 1-63	1750	37.5	4- 1-63	2130	37.2	5-25-63	1620	41.0	6- 5-63	1610	39.9
2- 6-63	0000	37.7	4-27-63	1130	39.5	5-30-63	1245	40.8			
2-15-63	1500	41.2	5-13-63	1430	40.8	6- 1-63	0000	40.0			

LOCATION			MAXIMUM DISCHARGE		PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T&R. M.D.B.M.	OF RECORD		DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT.			FROM	TO		
37 29 52	121 04 52	SW15 5S 8E		54.0	6-13-38		APR 38-DATE	1938 1959	0.00 0.00 3.53	USED USGS USED

Station located at Patterson-Turlock Highway Bridge, 3.1 mi. NE of Patterson

TABLE B-71

DAILY MEAN GAGE HEIGHT
SAN JOAQUIN RIVER AT GRAYSON
 IN FEET

STATION NO	WATER YEAR
807080	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	24.42	23.78	23.66	23.84	26.89	28.82	30.17	31.14	32.93	26.13	24.08	24.37	1
2	24.28	23.71	23.62	23.84	28.05	28.63	29.19	30.35	32.72	25.83	24.02	24.30	2
3	24.28	23.68	23.51	23.83	29.56	28.42	28.51	29.39	32.62	25.98	24.03	24.26	3
4	24.42	23.63	23.49	23.90	31.00	27.53	28.47	28.76	32.53	25.45	24.06	24.05	4
5	24.33	23.57	23.51	23.88	31.73	26.62	28.15	28.40	32.26	25.46	24.37	24.24	5
6	24.36	23.59	23.50	23.83	31.98	26.14	27.76	28.14	31.58	25.42	24.47	24.25	6
7	24.25	23.59	23.48	23.82	31.43	25.83	28.10	27.88	30.47	25.45	24.25	24.37	7
8	24.30	23.61	23.48	23.94	29.27	25.58	28.77	27.40	29.82	25.65	24.22	24.43	8
9	24.08	23.63	23.40	24.24	28.77	25.43	29.40	27.23	29.44	25.40	24.29	24.51	9
10	24.02	23.63	23.29	24.43	29.24	25.32	29.82	27.79	29.02	25.08	24.38	24.60	10
11	24.13	23.65	23.29	24.46	30.48	25.23	29.96	29.58	29.01	24.87	24.53	24.32	11
12	24.20	23.65	23.39	24.47	31.21	24.98	30.63	31.70	29.41	24.73	24.53	24.18	12
13	24.40	23.72	23.52	24.46	31.24	24.79	30.85	32.55	27.82	24.67	24.36	24.39	13
14	24.37	23.72	23.60	24.38	32.48	24.51	29.69	32.41	26.78	24.62	24.37	24.55	14
15	24.40	23.73	23.54	24.37	33.93	24.33	29.36	31.21	26.38	24.60	24.31	24.62	15
16	24.67	23.72	23.59	24.36	33.41	24.48	30.72	29.83	26.33	24.45	24.17	25.11	16
17	24.30	23.71	23.60	24.29	32.83	25.07	30.44	29.12	26.21	24.66	24.06	25.27	17
18	23.98	23.72	23.72	24.18	32.48	25.03	29.44	28.72	26.36	24.45	24.03	25.22	18
19	23.84	23.70	24.05	24.07	32.02	24.81	29.68	29.66	28.82	24.26	24.04	25.32	19
20	23.75	23.69	24.25	24.01	31.63	24.73	30.11	30.92	29.76	24.21	24.01	25.37	20
21	23.65	23.69	24.35	23.97	30.82	24.64	30.72	31.57	30.68	24.28	23.88	25.44	21
22	23.63	23.68	24.45	23.96	30.38	24.62	30.85	31.93	30.87	24.48	24.04	25.66	22
23	23.59	23.62	24.42	23.96	30.12	24.93	30.85	32.27	30.15	24.46	24.08	25.68	23
24	23.63	23.56	24.30	23.92	29.78	25.14	30.95	32.50	29.12	24.17	24.12	25.58	24
25	23.53	23.58	24.18	23.90	29.45	25.19	31.04	32.56	28.30	24.01	24.16	25.47	25
26	23.57	23.60	24.14	23.87	29.27	25.23	31.33	33.05	27.65	24.00	24.19	25.40	26
27	23.63	23.62	24.03	23.85	29.14	25.20	31.54	32.71	27.88	23.94	24.09	24.73	27
28	23.73	23.60	23.99	23.81	28.97	25.51	31.60	32.27	27.17	23.98	24.03	24.50	28
29	23.77	23.55	23.93	23.80		25.99	31.28	32.76	26.05	24.08	24.26	24.57	29
30	23.77	23.60	23.89	23.86		27.96	31.18	33.36	26.14	24.07	24.28	24.53	30
31	23.79		23.85	24.21		29.40		33.24		24.05	24.31		31

E - Estimated
 NR - No Record
 NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 1-63	1200	28.51	4- 1-63	1500	30.30	5-30-63	1900	33.48			
2- 6-63	1600	32.03	4-13-63	1100	30.97						
2-15-63	1300	34.10	5-13-63	1000	32.65						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 33 47	121 09 06	NW25 4S 7E	23900	45.15	3- 8-41	JUL 28-DATE	JUL 28-DATE	1960	1959	USED USCGS USED
								1960		

Station located at Laird Slough Bridge, 5 mi. above the Tuolumne River. High flows bypassing this station through old channel of San Joaquin River are included in figures shown. Records furnished by City of San Francisco.

TABLE B-72

DAILY MEAN GAGE HEIGHT

SAN JOAQUIN RIVER AT WEST STANISLAUS I. O. INTAKE

STATION NO	WATER YEAR
807070	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	19.93	20.48	22.37	21.08	22.27	25.01	28.79	28.35	30.64	22.73	18.75	19.60	1
2	19.77	20.43	22.08	21.17	25.43	24.43	26.50	27.16	30.47	22.59	18.76	19.68	2
3	19.74	20.38	21.55	21.21	29.16	24.06	25.14	25.98	30.30	22.07	18.64	19.69	3
4	19.86	20.36	21.43	21.88	30.54	23.45	24.76	25.40	30.07	21.09	18.86	19.61	4
5	19.89	20.26	21.91	21.63	31.06	22.65	24.26	25.10	29.05	21.00	19.15	19.66	5
6	19.86	20.11	22.10	21.20	31.22	22.44	23.37	24.86	27.56	20.75	19.16	19.72	6
7	19.86	20.15	22.41	20.90	30.52	22.13	23.36	24.37	26.50	20.77	19.01	19.89	7
8	19.88	20.32	22.58	20.92	27.62	21.73	25.07	23.50	25.80	21.65	18.93	19.97	8
9	19.66	20.36	22.28	21.49	27.16	21.58	27.38	23.35	25.72	21.16	18.99	19.92	9
10	19.55	20.40	21.76	21.52	27.57	21.43	28.18	23.73	25.98	21.45	19.35	19.95	10
11	19.62	20.41	21.87	21.44	28.80	21.16	28.75	24.89	26.22	21.49	19.67	19.63	11
12	19.85	20.39	22.38	21.67	28.76	20.81	29.77	27.63	27.59	21.29	19.73	19.47	12
13	20.64	20.39	22.25	21.55	28.02	20.51	29.44	28.68	25.11	21.41	19.48	19.66	13
14	21.04	20.45	22.14	21.17	30.00	19.88	27.48	28.22	22.61	20.88	19.42	19.89	14
15	21.07	20.51	21.87	20.92	31.85	19.60	27.45	27.25	22.30	20.62	19.43	20.03	15
16	21.15	20.55	21.75	20.85	30.34	19.86	29.79	26.73	22.96	20.30	19.29	20.55	16
17	20.87	20.58	21.48	20.87	29.19	20.44	28.61	26.06	22.73	20.18	19.18	20.90	17
18	20.59	20.52	21.44	20.85	28.74	20.39	26.65	25.16	21.94	19.99	19.31	20.87	18
19	20.41	20.48	22.20	20.78	28.72	20.16	26.94	25.38	23.62	19.61	19.33	21.02	19
20	20.35	20.47	22.37	20.75	28.71	20.02	27.73	26.33	26.09	19.33	19.28	21.01	20
21	20.27	20.57	22.48	20.62	27.42	19.94	28.73	26.97	28.47	19.41	19.07	21.04	21
22	20.20	20.52	22.77	20.51	27.03	19.94	28.76	27.27	28.88	19.45	19.27	21.22	22
23	19.99	20.48	22.69	20.64	26.73	20.21	28.47	27.67	27.47	19.37	19.46	21.30	23
24	20.00	20.44	22.22	20.60	26.17	20.44	28.48	28.13	26.02	18.77	19.49	21.18	24
25	20.19	21.08	21.98	20.60	25.48	20.39	28.42	29.07	24.71	18.38	19.64	21.12	25
26	20.27	21.12	21.91	20.63	25.35	20.38	28.55	29.59	23.31	18.81	19.70	20.97	26
27	20.36	21.23	21.68	20.61	25.56	20.41	28.76	29.68	22.56	18.73	19.40	20.18	27
28	20.44	21.78	22.01	20.43	25.33	20.76	28.42	29.46	21.87	18.87	19.12	19.90	28
29	20.48	21.92	21.73	20.31		23.28	27.44	29.92	21.74	18.98	19.23	19.97	29
30	20.45	22.22	21.67	20.62		27.43	27.97	30.72	22.61	18.85	19.34	19.95	30
31	20.46		21.40	20.93		28.43		30.81		18.44	19.45		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 6-63	1400	31.3	4-13-63	0410	30.1	5-31-63	0720	30.8			
2-15-63	0410	32.2	4-16-63	1530	30.1	6- 1-63	0000	30.7			
4- 1-63	1240	29.2	5-26-63	2400	29.8	6-22-63	1310	29.0			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 36 07	121 10 51	SE10 4S 7E						DEC 50-DATE		
								1959	1959	0.00
								1959		0.00
										3.67
										USED
										USED

Station located at intake gates for W.S.I.D. Canal, 2.6 mi. N of Grayson.

TABLE B-73

DAILY MEAN GAGE HEIGHT
TUOLUMNE RIVER AT LAGRANGE BRIDGE
 IN FEET

STATION NO	WATER YEAR
B04175	1963

DAY	OCT	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	67.55	69.19	70.23	69.25	71.70	69.14	70.24	71.10	73.38	70.59	67.35	67.38	1
2	67.57	69.17	69.91	70.31	75.09	68.99	70.14	70.52	73.40	68.25	67.35	67.31	2
3	67.24	69.15	70.56	70.18	75.10	68.98	69.90	70.46	73.17	67.98	67.35	67.30	3
4	67.24	68.88	70.68	69.59	75.11	69.19	68.61	70.48	71.64	67.83	67.35	67.39	4
5	67.22	68.95	70.90	69.26	75.02	69.31	67.34	70.33	70.26	67.85	67.35	67.18	5
6	67.22	69.25	71.11	69.06	74.26	69.08	67.65	69.93	70.24	68.79	67.35	67.20	6
7	67.21	69.23	71.09	69.77	71.57	69.10	70.50	68.73	70.25	69.45	67.35	67.19	7
8	67.21	69.26	70.52	69.75	72.54	69.11	72.84	68.61	70.92	68.60	67.35	67.21	8
9	67.33	69.30	70.25	69.47	72.75	69.08	72.67	68.61	71.53	70.23	67.34	67.27	9
10	68.62	69.26	71.06	69.79	72.57	68.74	73.69	69.18	72.10	69.29	67.34	67.11	10
11	69.23	69.21	70.80	69.85	71.49	68.96	74.24	71.46	73.32	70.10	67.38	67.18	11
12	69.28	69.29	70.57	69.26	70.89	67.69	72.62	70.65	68.99	69.59	67.38	67.33	12
13	69.24	69.41	70.20	68.91	72.90	67.38	70.91	69.70	68.38	68.46	67.38	67.32	13
14	69.04	69.36	70.08	68.91	73.36	67.36	72.50	70.65	69.74	68.56	67.39	67.29	14
15	68.75	69.45	69.74	68.95	71.46	67.27	74.38	71.80	70.22	68.36	67.40	67.28	15
16	69.19	69.34	69.31	69.11	71.13	67.32	71.42	71.35	69.18	68.42	67.41	67.27	16
17	69.17	69.30	70.34	69.12	71.08	67.31	70.34	70.70	68.36	67.58	67.41	67.25	17
18	69.14	69.24	70.40	69.14	72.11	67.30	71.76	70.51	69.13	67.36	67.42	67.26	18
19	69.18	69.48	70.42	69.02	71.54	67.26	72.36	70.56	72.20	67.35	67.54	67.30	19
20	69.16	69.33	70.72	68.79	71.06	67.26	72.46	70.25	73.81	67.33	67.39	67.30	20
21	68.78	69.34	70.85	68.88	71.27	67.28	72.09	70.10	73.60	67.32	67.39	67.34	21
22	68.73	69.25	70.41	69.11	71.09	67.27	72.03	70.10	71.27	67.31	67.39	67.33	22
23	69.22	70.05	69.96	68.80	70.37	67.25	72.01	70.55	71.13	67.32	67.38	67.42	23
24	69.16	70.10	70.25	69.12	69.82	67.29	72.02	71.64	69.45	67.31	67.61	67.44	24
25	69.22	69.70	69.71	69.11	70.40	67.30	72.06	72.19	68.72	67.31	67.30	67.43	25
26	69.24	70.60	70.51	69.06	70.74	67.33	72.19	72.20	68.51	67.31	67.25	67.43	26
27	69.24	70.61	70.06	68.34	70.40	68.37	70.97	72.52	68.50	67.33	67.27	67.41	27
28	69.16	70.76	70.06	68.72	69.77	72.30	70.21	73.15	69.41	67.32	67.39	67.39	28
29	69.11	71.00	69.87	69.12	74.27	72.35	73.44	70.25	67.32	67.33	67.29	67.29	29
30	69.25	70.92	69.21	68.98	73.79	72.00	73.41	70.05	67.31	67.33	67.25	67.25	30
31	69.25		69.72	68.99		73.80		73.39		67.33			31

CREST STAGES

E - Estimated
 NR - No Record
 NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 3-63	1030	75.3	2-18-63	2250	74.4	4-15-63	0850	75.0			
2- 9-63	1650	73.4	3-29-63	1930	74.7	4-10-63	1430	74.5			
2-14-63	2000	75.0	3-30-63	2310	74.5	4-19-63	2330	74.3			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 39 59	120 27 40	NW20 3S 14E	48200	88.0	12- 8-50	OCT 36-DAT	OCT 36-SEP 60	1937		0.00 USGS
							OCT 61-Date			

Station located at highway bridge, immediately N of La Grange. Flow regulated by reservoirs and power plants. In order to machine process this station, the recorder datum was changed. To obtain true elevations add 100 feet to all of the above gage heights.

TABLE 8-74

DAILY MEAN GAGE HEIGHT
TUOLUMNE RIVER AT ROBERTS FERRY BRIDGE

STATION NO	WATER YEAR
804165	1963

DAY	IN FEET												DAY
	OCT.	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	
1	8.28	9.92	11.02	10.06	11.16	9.94	11.33	11.69	13.74	10.60	8.26	8.38	1
2	8.41	9.90	10.71	10.60	15.72	9.82	10.70	10.95	13.78	9.93	8.25	8.40	2
3	8.52	9.90	10.91	10.92	15.92	9.74	10.46	10.89	13.67	8.90	8.23	8.37	3
4	8.37	9.78	11.27	10.45	15.84	9.73	10.07	10.87	12.52	8.74	8.23	8.37	4
5	8.32	9.58	11.45	10.15	15.81	10.04	8.68	10.76	10.80	8.72	8.27	8.41	5
6	8.33	9.88	11.73	9.97	15.55	9.92	8.54	10.38	10.75	9.00	8.25	8.43	6
7	8.32	9.88	11.75	10.08	12.14	9.77	10.23	9.44	10.73	10.31	8.24	8.40	7
8	8.30	9.88	11.27	10.51	13.03	9.78	12.83	9.42	11.11	9.10	8.24	8.41	8
9	8.30	9.92	10.99	10.23	13.26	9.77	13.21	9.40	11.87	10.51	8.26	8.41	9
10	8.62	9.93	11.42	10.34	13.15	9.55	13.93	9.36	12.03	10.24	8.28	8.40	10
11	9.81	9.89	11.51	10.58	12.32	9.55	14.83	11.57	14.03	10.28	8.30	8.44	11
12	10.04	9.87	11.26	10.16	11.42	9.07	13.88	11.25	10.58	10.31	8.29	8.47	12
13	9.97	10.00	11.04	9.93	12.77	8.49	11.11	10.38	9.30	9.58	8.25	8.51	13
14	9.88	10.09	10.86	9.65	14.41	8.37	12.16	10.62	9.99	9.36	8.26	8.55	14
15	9.64	10.09	10.52	9.68	12.11	8.33	15.05	11.95	10.66	9.19	8.30	8.55	15
16	9.89	10.03	10.30	9.83	11.51	8.32	12.61	11.79	10.23	9.22	8.29	8.53	16
17	9.91	10.01	10.65	9.82	11.54	8.31	10.71	11.15	9.24	8.87	8.28	8.51	17
18	9.88	9.95	11.14	9.85	11.96	8.30	12.04	10.86	9.44	8.43	8.30	8.54	18
19	9.92	10.00	11.09	9.84	12.67	8.27	12.38	10.90	11.75	8.29	8.30	8.58	19
20	9.92	10.03	11.32	9.65	11.45	8.25	12.86	10.74	14.28	8.26	8.31	8.58	20
21	9.68	10.01	11.46	9.58	11.68	8.25	12.74	10.55	14.26	8.24	8.28	8.59	21
22	9.56	10.00	11.21	9.83	11.59	8.26	12.32	10.53	12.11	8.25	8.33	8.61	22
23	9.95	10.17	10.78	9.63	11.08	8.28	12.38	10.55	11.49	8.24	8.35	8.61	23
24	9.89	10.84	10.88	9.81	10.48	8.26	12.36	12.05	10.52	8.26	8.34	8.60	24
25	9.93	10.55	10.59	9.83	10.74	8.26	12.40	12.23	9.55	8.26	8.56	8.65	25
26	9.97	10.92	10.76	9.82	11.26	8.26	12.52	12.51	9.46	8.26	8.38	8.67	26
27	9.96	11.26	10.92	9.30	11.00	8.53	11.91	12.73	9.30	8.26	9.31	8.69	27
28	9.91	11.35	10.70	9.49	10.76	11.56	10.74	13.31	9.65	8.25	8.32	8.68	28
29	9.86	11.64	10.54	9.83		14.70	12.01	13.82	10.66	8.25	8.36	8.69	29
30	9.95	11.61	10.29	9.83		14.38	12.78	13.78	10.56	8.23	8.38	8.67	30
31	9.97		10.19	9.69		14.55		13.77		8.23	8.37		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES								
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-2-63	2400	16.0	3-30-63	0120	15.1	4-9-63	0140	14.4
2-14-63	0230	15.6	3-31-63	1820	14.8	4-11-63	0100	15.1
2-19-63	0230	14.3	4-15-63	0140	15.3	6-11-63	1120	15.5
						6-20-63	1200	14.4

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	TO	ZERO ON GAGE
			C.F.S.	GAGE HT.	DATE					
37 38 08	120 37 03	NW35 3S 12E	49800	28.2	12- 8-50	JUL 28-OCT 36 JAN 37-FEB 38 JUN 38-DATE	JUL 28-OCT 36 JAN 37-FEB 38 JUN 38-DATE	1930 1940	1940	106.20 0.00
										USCGS USCGS

Station located at highway bridge, 7.5 mi. E of Waterford. In order to machine process this station, the recorder datum was changed. To obtain true elevations add 100 feet to all of the above gage heights.

TABLE B-75

DAILY MEAN GAGE HEIGHT
TUOLUMNE RIVER AT HICKMAN BRIDGE
IN FEET

STATION NO	WATER YEAR
804150	1963

DAY	OCT	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	72.33	73.92	75.27	74.23	74.68	73.66	75.56	75.46	77.25	74.01	71.57	71.57	1
2	72.30	73.92	74.86	74.31	74.91	73.47	74.49	74.70	77.26	73.74	71.58	71.59	2
3	72.44	73.91	74.86	75.05	75.30	73.32	74.24	74.66	77.16	72.28	71.56	71.55	3
4	72.34	73.79	75.40	74.57	74.22	73.22	74.00	74.58	76.33	72.11	71.55	71.52	4
5	72.31	73.57	75.44	74.19	74.19	73.76	72.42	74.49	74.47	72.05	71.58	71.52	5
6	72.29	73.93	75.74	73.93	74.09	73.61	72.23	74.21	74.34	72.10	71.58	71.55	6
7	72.29	73.94	75.87	73.90	74.15	73.39	73.59	73.01	74.31	73.70	71.53	71.54	7
8	72.28	73.95	75.53	74.47	74.65	73.41	72.27	72.93	74.52	72.57	71.50	71.50	8
9	72.28	73.96	75.15	74.26	74.90	73.41	72.98	72.90	75.42	73.73	71.52	71.51	9
10	72.29	73.96	75.31	74.19	74.89	73.22	72.44	72.80	75.44	73.91	71.56	71.49	10
11	73.44	73.93	75.66	74.53	74.26	73.08	72.36	74.89	77.29	73.54	71.56	71.51	11
12	73.98	73.89	75.35	74.21	75.24	72.90	72.91	75.11	74.69	73.75	71.56	71.54	12
13	73.95	74.03	75.22	73.92	74.02	72.14	75.01	74.13	72.71	73.05	71.54	71.58	13
14	73.95	74.16	75.10	73.58	74.20	72.03	75.66	73.99	73.26	72.68	71.53	71.59	14
15	73.65	74.15	74.65	73.60	74.01	71.92	72.52	75.58	74.24	72.50	71.55	71.60	15
16	73.87	74.12	74.49	73.73	75.29	71.90	76.80	75.55	73.97	72.50	71.57	71.57	16
17	73.89	74.04	74.50	73.76	75.34	71.89	74.51	74.90	72.64	72.31	71.56	71.55	17
18	73.87	73.98	75.30	73.78	75.43	71.88	75.60	74.54	72.63	71.88	71.57	71.56	18
19	73.91	74.02	75.16	73.81	74.65	71.87	75.85	74.58	74.89	71.72	71.56	71.61	19
20	73.90	74.12	75.32	73.58	75.21	71.87	76.56	74.45	77.44	71.67	71.53	71.62	20
21	73.68	74.07	75.49	73.45	75.43	71.86	76.59	74.19	77.58	71.63	71.53	71.62	21
22	73.50	74.06	75.32	73.77	75.41	71.86	75.94	74.17	75.96	71.61	71.55	71.65	22
23	73.93	74.02	74.95	73.55	74.93	71.87	76.09	74.13	75.08	71.59	71.57	71.61	23
24	73.93	74.97	74.88	73.73	74.28	71.85	76.03	75.55	74.31	71.58	71.57	71.60	24
25	73.94	74.69	74.82	73.76	74.34	71.84	76.06	75.71	72.99	71.62	71.69	71.60	25
26	73.98	74.81	74.61	73.77	74.98	71.82	76.14	76.10	72.93	71.60	71.65	71.63	26
27	73.97	75.33	75.12	73.32	74.75	71.83	75.82	76.23	72.65	71.59	71.55	71.65	27
28	73.91	75.42	74.71	73.31	74.64	74.70	74.51	76.73	72.82	71.57	71.52	71.62	28
29	73.85	75.69	74.65	73.79	78.17	75.31	77.26	74.18	71.59	71.54	71.54	71.62	29
30	73.97	75.71	74.49	73.83	78.05	76.56	77.25	74.15	71.57	71.57	71.57	71.61	30
31	73.98		74.10	73.66		77.97		77.25		71.52	71.56		31

CREST STAGES

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 2-63	1950	79.4	2-19-63	0550	78.2	4- 9-63	1450	78.0	4-20-63	0210	77.7
2- 9-63	2215	77.5	3-30-63	0350	78.6	4-11-63	0340	78.6			
2-14-63	0630	79.0	3-31-63	2100	78.3	4-15-63	0430	78.7			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.A.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 38 10	120 45 14	NW34 3S 11E	59000	96.2	12- 8-50	JUL 32-OCT 36 JAN 37-MAR 37 JUL 37-FEB 38 JUL 38-DEC 38 MAR 39-DATE	JUL 32-OCT 36 JAN 37-MAR 37 JUL 37-FEB 38 JUL 38-DEC 38 MAR 39-DATE	1932		USCGS

Station located at Hickman-Waterford Road Bridge, immediately SE of Waterford.

TABLE B-76

DAILY MEAN GAGE HEIGHT
ORY CREEK NEAR MODESTO

STATION NO	WATER YEAR
804130	1963

IN FEET													
OAY	OCT.	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	68.32	67.74	67.51	67.45	71.34	67.86	68.43	68.39	68.70	69.45	68.40	68.55	1
2	68.25	67.77	67.50	67.45	76.13	67.80	68.18	68.25	69.11	69.29	68.30	68.50	2
3	68.30	67.72	67.48	67.47	70.77	67.82	68.05	68.40	69.48	68.97	68.33	68.45	3
4	68.52	67.70	67.48	67.47	69.26	67.83	67.96	68.44	69.40	69.20	68.35	68.45	4
5	68.65	67.66	67.47	67.46	68.65	67.81	67.88	68.22	69.30	69.30	68.40	68.61	5
6	68.64	67.64	67.47	67.46	68.30	67.77	67.86E	68.31	69.22	68.66	68.51	68.66	6
7	68.68	67.62	67.47	67.47	68.07	67.71	67.96E	68.30	69.31	68.60	68.47	68.61	7
8	68.70	67.60	67.45	67.47	67.92	67.70	71.62E	68.14	69.01	68.67	68.50	68.65	8
9	68.54	67.61	67.44	67.46	67.90	67.77	70.42	68.38	68.73E	68.56	68.50	68.66	9
10	68.58	67.59	67.44	67.47	71.05	67.73	69.85	68.57	68.84E	68.72	68.52	68.58	10
11	68.59	67.62	67.44	67.47	73.85	67.75	69.42	68.56	68.84	68.60	68.41	68.46	11
12	68.68	67.60	67.44	67.45	69.98	67.74	69.22	68.72	68.71	68.49	68.54	68.58	12
13	69.47	67.58	67.43	67.44	71.64	67.74	69.07	68.69	68.64	68.49	68.36	68.59	13
14	69.43	67.55	67.44	67.44	77.94	67.74	69.01	68.64	68.65	68.47	68.36	68.55	14
15	69.22	67.59	67.46	67.45	71.78	67.71	71.44	68.68	68.78	68.80	68.33	68.67	15
16	69.10	67.59	67.66	67.45	69.92	67.72	72.04	68.72	69.11	68.78	68.42	68.66	16
17	68.24	67.54	68.08	67.44	69.26	67.79	70.43	68.73	68.93	68.63	68.36	68.72	17
18	68.04	67.55	68.15	67.44	68.93	67.81	69.49	68.96	68.97	68.58	68.35	68.93	18
19	67.93	67.55	67.83	67.44	68.71	67.74	69.03	68.77	68.95	68.60	68.30	68.94	19
20	67.80	67.55	67.66	67.45	68.52	67.71	73.21	68.61	68.66	68.53	68.29	68.73	20
21	67.73	67.55	67.59	67.49	68.37	67.70	72.06	68.60	68.58	68.61	68.33	68.67	21
22	67.66	67.52	67.53	67.49	68.27	67.73	71.92	68.63	68.63	68.62	68.43	68.68	22
23	67.63	67.50	67.49	67.48	68.16	68.14	70.43	68.98	68.92	68.53	68.29	68.64	23
24	67.65	67.48	67.47	67.45	68.10	68.01	69.79	68.78	69.39	68.42	68.26	68.65	24
25	67.67	67.47	67.46	67.45	68.04	67.82	69.49	68.64	69.53	68.33	68.35	68.69	25
26	67.69	67.46	67.46	67.44	67.98	67.77	69.32	69.10	69.44	68.34	68.44	68.61	26
27	67.73	67.50	67.46	67.44	67.93	67.81	69.51	68.98	69.38	68.41	68.61	68.43	27
28	67.76	67.50	67.46	67.46	67.91	68.06	69.77	68.90	69.35	68.47	68.59	68.41	28
29	67.75	67.51	67.45	67.52		70.37	69.26	68.92	69.29	68.52	68.50	68.48	29
30	67.71	67.51	67.45	67.51		69.73	68.62	68.87	69.29	68.47	68.48	68.54	30
31	67.63		67.47	67.55		68.85		68.74		68.34	68.45		31

CREST STAGES

E - Estimated
 NR - No Record
 NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 2-63	0100	79.0	3-29-63	1340	71.7	4-22-63	0115	70.9			
2-10-63	2330	77.4	4-15-63	1150	73.5						
2-14-63	2130	79.7	4-20-63	1320	75.7						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T & R M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 39 26	120 55 19	SE24 3S 9E	7710	88.04	12-23-55	MAR 41-DATE	MAR 41-DATE	1941		0.00 USCGS

Station located 0.1 mi. below Claus Road bridge, 4 mi. E. of Modesto. Tributary to Tuolumne River. Prior to Mar. 1941, records available for a site 2.5 mi. downstream. Station is operated under a cooperative agreement between the Department of Water Resources and the Modesto Irrigation District.

TABLE B-77

DAILY MEAN GAGE HEIGHT

TUOLUMNE RIVER AT MAGESTO

IN FEET

STATION NO	WATER YEAR
804120	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	41.34	41.89	43.13	42.10	42.17	42.26	45.95	44.12	46.53	42.32	41.29	41.29	1
2	41.34	41.87	42.41	41.94	47.50	41.95	42.59	43.02	46.62	42.54	41.29	41.32	2
3	41.32	41.85	42.22	42.45	50.57	41.89	42.38	42.67	46.67	41.78	41.27	41.30	3
4	41.37	41.85	42.56	42.42	50.51	41.84	42.26	42.61	46.10	41.66	41.30	41.27	4
5	41.38	41.78	42.64	42.14	50.41	41.98	41.87	42.60	43.45	41.62	41.28	41.27	5
6	41.35	41.74	42.95	41.98	50.36	41.99	41.54	42.49	42.57	41.53	41.28	41.29	6
7	41.38	41.88	43.11	41.88	47.58	41.89	41.76	42.08	42.52	41.84	41.27	41.32	7
8	41.38	41.91	43.11	42.13	44.63	41.87	43.51	41.80	42.50	42.04	41.28	41.33	8
9	41.32	41.91	42.59	42.18	45.32	41.88	45.83	41.80	43.15	41.86	41.30	41.34	9
10	41.35	41.92	42.37	42.05	46.10	41.86	45.94	41.80	43.48	42.37	41.28	41.32	10
11	41.37	41.93	43.08	42.16	46.49	41.73	41.96	42.22	45.20	42.13	41.31	41.33	11
12	41.86	41.91	42.85	42.21	43.74	41.78	48.61	43.30	45.06	42.32	41.29	41.33	12
13	42.11	41.91	42.76	41.98	43.60	41.50	44.80	42.59	42.02	42.11	41.24	41.39	13
14	42.19	41.96	42.48	41.82	49.50	41.34	43.22	42.19	41.79	41.82	41.25	41.35	14
15	42.13	41.95	42.38	41.78	46.80	41.29	47.17	43.01	42.29	41.80	41.25	41.37	15
16	42.08	41.97	42.27	41.80	43.67	41.28	48.67	43.77	42.41	41.71	41.31	41.39	16
17	42.05	41.93	42.06	41.85	43.23	41.27	43.71	43.06	41.99	41.66	41.26	41.34	17
18	42.02	41.92	42.54	41.85	43.09	41.29	42.99	42.61	41.73	41.53	41.27	41.38	18
19	42.00	41.90	42.57	41.86	45.02	41.27	43.82	42.57	42.22	41.41	41.28	41.38	19
20	42.01	41.96	42.51	41.84	43.48	41.26	46.15	42.56	45.18	41.36	41.25	41.36	20
21	41.96	41.94	42.76	41.75	43.16	41.25	46.17	42.39	47.13	41.35	41.26	41.36	21
22	41.83	41.94	42.95	41.77	43.30	41.24	44.89	42.33	46.17	41.35	41.28	41.36	22
23	41.78	41.92	42.54	41.84	42.99	41.28	44.72	42.35	43.40	41.35	41.30	41.34	23
24	41.93	42.30	42.26	41.77	42.48	41.28	44.57	42.90	43.11	41.30	41.28	41.33	24
25	41.93	42.43	42.41	41.85	42.28	41.25	44.52	43.47	42.16	41.30	41.34	41.34	25
26	41.90	42.26	42.14	41.85	42.57	41.23	44.63	44.32	41.97	41.32	41.36	41.34	26
27	41.85	42.89	42.52	41.83	42.67	41.27	44.82	44.35	41.86	41.30	41.31	41.34	27
28	41.85	42.89	42.31	41.63	42.55	41.55	43.09	44.97	41.79	41.31	41.28	41.34	28
29	41.86	43.05	42.28	41.73	45.89	42.69	46.23	42.17	41.34	41.26	41.33	41.33	29
30	41.84	43.26	42.20	41.87	48.26	42.67	45.28	46.58	42.43	41.35	41.31	41.36	30
31	41.88		41.96	41.86	47.41			46.53		41.30	41.27		31

CREST STAGES

E - Estimated
NR - No Record
NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 2-63	2400	50.35	2- 5-63	1200	50.46	4- 6-63	0300	49.74			
2- 3-63	1000	50.68	2- 6-63	1300	50.40						
2- 4-63	1000	50.61	2-14-63	1800	51.21						

LOCATION				MAXIMUM DISCHARGE			PERIOD OF RECORD			DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.M.		OF RECORD			DISCHARGE	GAGE HEIGHT ONLY		PERIOD		REF. DATUM
				C.F.S.	GAGE HT.	DATE				FROM	TO	
37 37 38	120 59 20	SW33 3S 9E		57000	69.19	12- 9-50	JAN 95-DEC 96 MAR 40-DATE	78- 84 91- 97 MAR 40-DATE		1940		0.00 USCGS

Station located at U.S. Highway 99 Bridge. Records furnished by U.S.G.S.
Flow records are published by the U.S.G.S. report, "Surface Water Records
of California."

TABLE B-78

DAILY MEAN GAGE HEIGHT

TUOLUMNE RIVER AT TUOLUMNE CITY

IN FEET

STATION NO	WATER YEAR
804105	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	24.02	25.90	28.68	26.36	25.60	NR	32.90	30.90	33.17	27.28	24.30	24.19	1
2	23.93	25.87	29.92	26.36	30.17	NR	29.08	29.49	33.11	27.45	24.28	24.17	2
3	23.97	25.83	30.57	26.78	35.08	NR	27.88	28.45	33.11	26.49	24.23	24.11	3
4	24.01	25.78	30.50	27.53	35.56	NR	27.41	28.21	32.85	25.45	24.22	24.11	4
5	24.06	25.67	29.85	26.96	35.68	NR	26.78	28.08	31.07	25.37	24.21	24.05	5
6	24.09	25.40	29.57	26.38	35.72	NR	26.65	27.83	28.93	25.10	24.19	24.10	6
7	24.06	25.64	28.85	26.01	34.67	NR	25.40	27.21	28.33	25.18	24.21	24.15	7
8	24.10	25.82	29.00	26.10	30.95	NR	27.94	26.19	28.04	26.36	24.21	24.11	8
9	24.04	25.86	28.42	26.20	31.23	NR	31.17	26.04	28.50	25.52	24.27	24.17	9
10	24.00	25.87	27.83	25.48	31.72	NR	31.78	26.00	29.29	26.62	24.27	24.11	10
11	24.02	25.87	29.33	26.50	32.64	NR	32.97	26.33	30.11	26.56	24.28	24.06	11
12	24.60	25.84	28.66	26.81	31.04	NR	34.14	29.16	31.75	26.57	24.27	24.07	12
13	25.98	25.79	28.29	26.42	29.93	NR	32.70	29.60	27.86	26.58	24.19	24.11	13
14	26.51	25.89	27.89	25.92	33.62	NR	29.76	28.78	26.12	25.80	24.18	24.22	14
15	26.45	26.03	27.70	25.93	34.62	NR	31.22	28.58	26.65	25.59	24.18	24.19	15
16	26.29	26.08	27.50	25.46	31.68	NR	34.50	29.51	27.44	25.39	24.22	24.20	16
17	26.05	26.10	27.00	25.59	30.47	NR	31.48	29.10	26.94	25.24	24.12	24.12	17
18	25.98	25.99	27.15	25.62	30.08	NR	28.92	28.25	25.89	25.16	24.12	24.11	18
19	25.89	25.90	27.99	25.63	30.93	NR	29.96	28.00	26.12	24.76	24.13	24.19	19
20	25.87	25.91	27.91	25.63	30.71	24.19	31.17	28.21	29.47	24.99	24.11	24.21	20
21	25.87	26.07	28.14	25.43	29.48	24.17	32.16	28.22	32.52	24.52	24.11	24.25	21
22	25.68	26.02	28.46	25.28	29.46	24.19	31.66	28.22	36.66	24.48	24.12	24.24	22
23	25.40	25.98	28.17	25.57	29.18	24.21	31.14	28.45	30.12	24.47	24.17	24.19	23
24	25.53	26.10	27.55	25.40	28.37	24.25	31.01	28.89	29.14	24.39	24.18	24.11	24
25	25.80	27.21	27.47	25.50	27.58	24.20	30.90	30.28	27.71	24.31	24.22	24.15	25
26	25.83	27.00	27.18	25.57	27.87	24.15	29.99	31.03	26.48	24.32	24.27	24.14	26
27	25.90	27.40	27.27	25.57	NR	24.13	31.18	31.31	26.18	24.32	24.27	24.11	27
28	25.91	28.12	27.56	25.17	NR	24.48	30.24	31.46	25.92	24.32	24.15	24.12	28
29	25.85	28.30	27.24	25.06	24.83	24.83	28.90	32.31	26.26	24.48	24.16	24.13	29
30	25.76	28.70	27.06	25.54	33.21	30.53	33.14	27.34	24.36	24.36	24.20	24.10	30
31	25.83		26.68	25.72		33.12	33.21		24.32		24.19		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 6-63	1130	35.76	4-12-63	1400	34.30	7- 2-63	1450	28.03			
2-14-63	2350	36.15	4-16-63	0900	34.83						
4- 1-63	1000	33.51	6-22-63	0900	32.96						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 36 12	121 D7 50	NW 7 4S 8E		46.65	12- 9-50	30-DATE	30-DATE	1960	1959	0.00	USED
								1960		0.00	USCS
										3.50	USED

Station located at highway bridge, 3.35 mi. above mouth. Backwater at times affects the stage-discharge relationship. Records furnished by City of San Francisco.

TABLE B-79

DAILY MEAN GAGE HEIGHT
SAN JOAQUIN RIVER AT MAZE ROAD BRIDGE
 IN FEET

STATION NO	WATER YEAR
807040	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	15.07	15.67	17.39	16.37	16.67	19.86	23.79	23.44	26.63	18.22	14.42	14.81	1
2	15.01	15.62	17.21	16.41	19.50	19.31	22.39	22.48	26.36	17.90	14.42	14.85	2
3	14.97	15.57	16.68	16.25	24.22	18.90	20.82	21.40	25.85	17.59	14.39	14.84	3
4	15.07	15.55	16.46	17.04	26.21	18.43	20.31	21.32	25.46	16.63	14.44	14.76	4
5	15.16	15.48	16.84	16.80	26.27	17.70	19.83	21.29	24.40	16.47	14.59	14.80	5
6	15.17	15.33	17.02	16.37	26.19	17.48	18.79	21.27	22.85	16.22	14.64	14.83	6
7	15.19	15.32	16.64	16.06	25.65	17.17	18.66	21.04	21.67	16.11	14.53	14.92	7
8	15.15	15.48	16.44	15.95	23.44	16.78	20.85	20.97	21.01	16.85	14.55	15.09	8
9	14.85	15.54	16.60	16.47	22.58	16.62	23.08	21.18	21.11	16.66	14.57	15.08	9
10	14.72	15.57	17.11	16.61	22.82	16.44	24.23	21.67	21.42	16.65	14.69	15.12	10
11	14.78	15.60	17.21	16.46	24.07	16.20	24.14	22.69	21.62	16.93	14.89	14.87	11
12	15.03	15.60	16.67	16.68	24.49	15.86	25.48	24.64	22.93	16.57	15.01	14.79	12
13	15.76	15.59	16.74	16.66	23.81	15.75	26.18	25.67	21.52	16.67	14.75	14.94	13
14	16.28	15.61	16.80	16.27	24.68	15.15	24.50	25.17	18.96	16.27	14.62	15.17	14
15	16.37	15.69	17.09	15.98	26.55	14.87	23.03	23.79	17.95	16.03	14.61	15.26	15
16	16.43	15.75	16.92	15.88	25.61	14.97	24.73	22.63	19.21	15.79	14.58	15.56	16
17	16.20	15.79	16.65	15.88	24.54	15.57	24.84	21.66	19.75	15.66	14.55	15.99	17
18	15.86	15.75	16.46	15.88	24.06	16.09	23.19	20.79	19.08	15.54	14.59	15.97	18
19	15.67	15.70	17.18	15.82	23.82	15.67	22.50	21.15	20.41	15.30	14.55	16.04	19
20	15.58	15.65	17.37	15.79	23.87	15.23	22.88	22.72	21.36	15.06	14.53	16.06	20
21	15.50	15.76	17.55	15.66	22.77	15.07	23.97	23.62	23.35	15.02	14.36	16.10	21
22	15.45	15.75	17.82	15.93	22.13	14.98	24.66	24.17	24.03	15.08	14.45	16.25	22
23	15.24	15.72	17.88	15.60	21.79	15.13	24.63	24.63	23.07	14.98	14.64	16.40	23
24	15.18	15.64	17.52	15.61	21.36	15.34	24.58	24.93	21.43	14.78	14.65	16.29	24
25	15.38	16.15	17.22	15.57	20.74	15.60	24.21	25.56	20.16	14.52	14.77	16.24	25
26	15.48	16.33	17.16	15.61	20.43	15.54	24.12	26.01	18.80	14.50	14.89	16.11	26
27	15.55	16.31	16.75	15.61	20.41	15.38	24.24	26.21	18.06	14.46	14.72	15.58	27
28	15.64	16.84	17.12	15.47	20.16	15.74	24.05	25.89	17.37	14.52	14.53	15.18	28
29	15.67	16.99	16.82	15.27	17.90	17.90	23.06	25.82	17.15	14.59	14.60	15.19	29
30	15.64	17.25	16.84	15.53	22.59	22.59	22.99	26.40	17.98	14.52	14.66	15.22	30
31	15.64		16.74	15.84		23.46		26.69		14.41	14.74		31

CREST STAGES

E - Estimated
 NR - No Record
 NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-4-63	1850	26.5	5-13-63	1230	25.8	6-1-63	0000	26.68			
2-15-63	0900	26.7	5-27-63	1115	26.3						
4-13-63	1100	26.4	5-31-63	1440	26.7						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D. & B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 38 28	121 13 37	SW29 3S 7E		39.8	12-9-50	JAN 50-MAR 52	SEP 43-DATE	1943 1959 1959	1959	0.00 0.00 3.41 USED USCGS USED

Station located at State Highway 132 Bridge, 13 mi. W of Modesto.

TABLE B-80

DAILY MEAN GAGE HEIGHT
STANISLAUS RIVER AT ORANGE BLOSSOM BRIDGE

STATION NO.	WATER YEAR
B03175	1963

IN FEET													DAY
DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	
1	01.40	02.16	01.79	01.94	07.27	01.39	05.37	04.17	08.11	01.91	01.41	01.49	1
2	01.36	01.85	01.79	01.91	14.05	01.37	04.94	04.62	07.15	01.67	01.39	01.46	2
3	01.37	02.13	01.79	01.90	08.92	01.36	04.90	06.98	06.06	01.61	01.38	01.42	3
4	01.40	02.14	01.79	01.90	07.41	01.35	04.18	07.35	04.38	01.60	01.44	01.45	4
5	01.46	02.15	01.79	01.90	06.92	01.33	02.00	07.64	03.60	01.58	01.39	01.56	5
6	01.44	02.15	01.80	01.90	05.66	01.81	03.83	08.29	02.40	01.58	01.43	01.52	6
7	01.39	02.14	01.81	01.89	05.39	01.83	08.66	10.10	03.63	01.58	01.39	01.56	7
8	01.37	02.07	01.80	01.89	05.66	01.41	09.00	10.26	05.00	01.54	01.41	01.61	8
9	01.35	02.06	01.81	01.90	05.59	01.33	07.81	11.44	05.05	01.48	01.46	01.55	9
10	01.36	02.02	01.82	01.90	08.35	01.66	06.86	12.34	05.47	01.46	01.45	01.57	10
11	01.41	02.02	01.84	01.89	07.74	03.08	12.27	12.08	06.16	01.42	01.42	01.75	11
12	01.49	02.07	01.83	01.88	07.07	02.89	10.91	10.85	05.77	01.42	01.38	01.78	12
13	02.07	02.06	01.85	01.84	06.95	02.79	06.23	08.72	03.97	01.42	01.36	01.78	13
14	02.05	02.08	01.84	01.84	06.78	02.57	05.72	07.15	03.73	01.39	01.41	01.77	14
15	01.99	02.13	01.91	01.75	06.67	02.45	06.80	05.61	06.99	01.40	01.45	01.77	15
16	01.98	02.12	02.04	01.71	05.63	03.67	08.17	04.55	07.34	01.41	01.48	01.76	16
17	01.84	02.07	02.01	01.70	06.54	05.05	06.94	04.75	07.73	01.39	01.45	01.77	17
18	01.89	02.12	02.47	01.70	05.98	02.89	05.43	07.25	08.26	01.41	01.41	01.88	18
19	01.93	02.13	03.01	01.71	05.21	01.81	05.57	10.22	05.73	01.43	01.43	01.87	19
20	01.89	02.17	03.03	01.64	04.75	01.55	06.74	10.66	05.95	01.44	01.41	01.84	20
21	01.78	02.13	02.95	01.63	03.86	01.52	08.90	11.15	06.03	01.40	01.45	01.84	21
22	01.77	02.12	03.04	01.56	03.87	01.52	08.76	11.19	05.34	01.39	01.45	01.85	22
23	02.06	02.13	03.06	01.49	03.87	02.38	08.02	11.18	02.40	01.38	01.43	01.88	23
24	02.07	02.13	02.87	01.39	03.87	04.06	06.89	11.11	02.11	01.39	01.44	01.87	24
25	02.09	02.13	02.00	01.38	03.29	02.72	06.88	11.07	02.10	01.45	01.47	01.87	25
26	02.12	02.14	01.94	01.38	01.79	01.75	06.89	10.32	01.90	01.41	01.50	01.87	26
27	02.10	02.09	01.94	01.37	01.52	01.54	06.30	09.32	01.89	01.42	01.45	01.87	27
28	02.10	01.91	02.95	01.38	01.41	07.99	05.42	09.49	02.57	01.41	01.42	01.87	28
29	02.08	01.84	03.27	01.38		06.98	05.10	10.00	02.89	01.39	01.46	01.86	29
30	02.08	01.79	03.08	01.42		05.65	04.42	09.78	02.61	01.43	01.44	01.86	30
31	02.10		02.75	01.60		05.46		09.43		01.37	01.46		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 2-63	0800	15.7	4-11-63	1630	12.5	5-22-63	1600	11.2			
3-28-63	1550	12.1	5- 6-63	2230	10.3						
4- 8-63	0400	11.8	5- 9-63	2140	12.5						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 47 18	120 45 41	SW 4 2S 11E	52000	30.05	11-21-50	JUN 28-DEC 39 APR 40-DATE	JUN 28-DEC 39 APR 40-DATE			0.00 LOCAL

Station located at bridge, 5.0 mi. E of Oakdale. Flow regulated by reservoirs and power plants.

TABLE B-81

DAILY MEAN GAGE HEIGHT
STANISLAUS RIVER AT RIVERBANK
 IN FEET

STATION NO	WATER YEAR
803145	1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	73.07	73.81	73.48	74.38	76.05	73.27	78.19	76.95	81.97	74.24	72.87	72.94	1
2	73.10	73.86	73.45	73.76	87.69	73.19	77.73	76.46	80.37	73.57	72.85	73.00	2
3	73.11	73.56	73.44	73.69	83.90	73.14	77.61	79.64	79.93	73.31	72.88	72.91	3
4	73.11	73.85	73.44	73.65	80.56	73.10	77.49	80.00	77.76	73.30	72.90	72.88	4
5	73.11	73.91	73.45	73.63	80.33	73.07	75.09	80.63	77.33	73.19	72.92	72.90	5
6	73.17	73.92	73.46	73.63	78.77	73.04	74.03	80.64	75.47	73.16	72.85	72.96	6
7	73.15	73.94	73.46	73.60	78.04	73.98	81.51	83.04	75.56	73.12	72.85	72.94	7
8	73.12	73.91	73.47	73.58	78.55	73.26	81.26	83.50	77.84	73.13	72.85	72.99	8
9	73.11	73.82	73.44	73.57	78.34	73.09	82.53	84.19	77.95	73.10	72.88	73.00	9
10	73.16	73.80	73.48	73.61	80.73	73.00	78.92	85.94	78.30	73.07	72.94	72.95	10
11	73.18	73.74	73.49	73.61	80.86	74.57	84.39	85.98	78.83	73.04E	72.93	72.99	11
12	73.38	73.76	73.50	73.57	80.45	75.17	85.55	85.10	79.17	73.00E	72.87	73.17	12
13	73.75	73.81	73.50	73.53	79.84	75.09	80.57	82.90	77.21E	72.96E	72.83	73.25	13
14	73.98	73.81	73.50	73.51	79.97	74.87	78.54	80.71	75.44E	72.93E	72.81	73.28	14
15	73.93	73.88	73.52	73.46	79.58	74.51	79.11	79.17	79.35	72.89E	72.85	73.20	15
16	73.76	73.99	73.81	73.35	79.50	74.76	81.36	77.87	80.63	72.89E	72.87	73.17	16
17	73.63	73.99	73.95	73.31	79.44	77.84	80.72	77.54	79.92	72.90	72.87	73.18	17
18	73.48	73.94	73.83	73.29	79.12	76.09	78.32	79.14	81.99	72.93	72.92	73.24	18
19	73.52	74.01	75.14	73.30	78.20	74.38	78.29	83.05	78.82	72.96	72.91	73.36	19
20	73.55	74.06	75.60	73.27	77.98	73.45	78.79	83.84	78.82	72.93	72.88	73.33	20
21	73.48	74.08	75.31	73.22	76.51	73.22	81.85	84.55	78.87	72.95	72.87	73.35	21
22	73.35	74.04	75.45	73.19	76.43	73.23	81.96	84.68	78.62	72.87	72.87	73.35	22
23	73.40	74.03	75.48	73.13	76.38	73.35	81.63	84.70	75.80	72.86	72.87	73.37	23
24	73.71	74.02	75.51	73.09	76.36	76.48	79.93	84.65	74.36	72.84	72.85	73.39	24
25	73.76	74.04	74.41	73.06	76.27	75.38	79.78	84.58	74.25	72.81	72.93	73.36	25
26	73.79	74.03	73.82	73.02	74.48	74.09	79.79	84.25	73.96	72.87	72.97	73.34	26
27	73.82	74.07	73.70	73.02	73.67	73.31	79.54	82.97	73.67	72.83	72.97	73.36	27
28	73.82	73.94	74.07	73.02	73.39	77.48	78.22	82.63	74.16	72.86	72.94	73.36	28
29	73.81	73.67	75.76	73.01		81.31	78.05	83.37	75.27	72.85	72.89	73.39	29
30	73.79	73.54	75.65	73.05		78.57	77.19	83.23	75.28	72.82	72.91	73.39	30
31	73.80		75.51	73.13		78.22		83.03		72.86	72.91		31

E - Estimated
 NR - No Record
 NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 2-63	1500	88.8	4- 7-63	1410	82.8	4-21-63	1400	82.1			
2-10-63	1300	81.9	4- 8-63	2330	84.1	5-11-63	1830	86.1			
3-28-63	2315	84.1	4-12-63	0510	85.9	5-23-63	0530	84.7			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 44 31	120 56 21	SW24 2S 9E	85800	103.18	12-23-55	JUL 40-DATE	JUL 40-DATE	1940		USCGS

Station located at Burneyville Bridge, immediately N of Riverbank.

TABLE B-82

DAILY MEAN GAGE HEIGHT

STANISLAUS RIVER AT RIPON
IN FEET

STATION NO	WATER YEAR
803125	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	37.61	38.04	37.68	39.90	37.70	38.65	45.05	44.15	52.88	40.58	37.91	38.13	1
2	37.57	38.07	37.61	38.71	68.04	38.46	44.65	43.39	50.96	39.70	37.94	38.22	2
3	37.53	38.02	37.57	38.21	54.01	38.32	44.14	45.33	49.44	39.29	38.04	38.06	3
4	37.41	37.88	37.55	38.02	52.10	38.20	44.02	47.80	46.89	39.26	38.10	37.65	4
5	37.59	38.07	37.55	37.92	49.06	38.11	42.44	48.55	45.04	39.36	38.12	37.07	5
6	37.52	38.12	37.54	37.88	47.35	38.03	40.12	49.01	43.51	39.18	38.03	37.93	6
7	37.63	38.13	37.55	37.84	65.25	38.26	44.86	50.34	42.18	39.09	37.93	38.07	7
8	37.58	38.14	37.55	37.80	45.32	38.45	49.55	52.60	43.92	38.93	38.08	38.09	8
9	37.51	38.09	37.55	37.77	45.39	38.07	51.37	53.37	45.04	38.81	37.92	38.25	9
10	37.38	38.02	37.54	37.77	45.87	37.90	49.21	54.49	45.40	38.59	37.94	38.01	10
11	37.57	37.99	37.55	37.76	49.61	38.06	49.58	55.63	45.94	38.42	38.12	37.97	11
12	38.22	37.93	37.56	37.74	49.15	39.76	54.43	55.68	47.00	38.35	38.17	38.17	12
13	38.30	37.94	37.56	37.72	48.27	39.87	54.28	54.80	45.73	38.35	38.11	38.48	13
14	38.43	37.95	37.56	37.67	48.60	39.73	48.58	52.48	43.08	38.46	37.95	38.57	14
15	38.72	37.93	37.58	37.64	47.81	39.38	45.82	49.19	44.39	38.48	37.92	38.43	15
16	38.56	38.03	37.76	37.58	47.42	39.14	48.89	46.20	48.17	38.27	38.00	38.28	16
17	38.28	38.12	38.23	37.48	47.29	41.68	50.23	44.71	48.16	38.33	37.86	38.15	17
18	37.92	38.12	38.17	37.44	47.04	43.06	47.99	45.36	49.92	38.34	37.97	38.18	18
19	37.77	38.10	38.33	37.41	45.92	41.47	46.11	49.44	49.14	38.36	37.91	38.36	19
20	37.77	38.16	39.65	37.40	44.94	38.89	45.21	52.61	46.40	38.35	37.87	38.42	20
21	37.74	38.20	40.03	37.38	43.76	38.38	48.92	53.64	46.58	38.38	37.83	38.44	21
22	37.68	38.22	39.93	37.32	42.66	38.07	51.32	54.30	46.67	38.21	37.89	38.54	22
23	37.59	38.17	40.13	37.28	42.46	38.00	51.49	54.67	44.82	38.16	38.03	38.49	23
24	37.65	38.14	40.20	37.24	42.34	39.29	50.19	54.63	41.74	38.12	37.87	38.43	24
25	37.88	38.16	39.93	37.19	42.26	41.48	48.59	54.63	40.97	38.03	37.97	38.33	25
26	37.95	38.17	38.71	37.16	41.22	39.85	48.40	54.62	40.58	37.98	38.08	38.23	26
27	38.00	38.22	38.24	37.13	39.50	38.58	48.37	54.05	40.07	37.91	38.02	38.23	27
28	38.06	38.22	38.05	37.11	38.94	39.28	46.91	53.00	39.78	37.99	37.94	38.24	28
29	38.06	38.04	39.17	37.10		49.15	45.95	52.96	40.62	38.02	37.92	38.35	29
30	38.06	37.81	40.42	37.13		47.13	45.04	53.38	41.15	38.02	38.06	38.46	30
31	38.03		40.34	37.19		45.32		53.28		37.91	37.94		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES											
DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2- 3-63	1100	55.33	4-13-63	0100	55.35	5-25-63	0100	54.64			
3-29-63	1500	50.57	4-17-63	0400	50.30	6-19-63	0030	51.40			
4- 8-63	2200	52.19	5-11-63	2200	55.80						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF.
			C.F.S.	GAGE HT.	DATE			FROM	TO	
37 43 50	121 06 35	SE29 2S 8E	62500	63.25	12-24-55	APR 40-DATE	APR 40-DATE	1940		USGS

Station located 15 ft. below the Southern Pacific Railroad Bridge, 1.0 mi. SE of Ripon. Records
furn. by U.S.G.S. Flow records are published in U.S.G.S. report, "Surface Water Records of California."

TABLE B-83

DAILY MEAN GAGE HEIGHT
STANISLAUS RIVER AT KOETITZ RANCH
 IN FEET

STATION NO	WATER YEAR
603115	1963

DAY	OCT.	NOV.	DEC.	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	28.63	28.49	28.20	30.48	27.71	29.28	36.00E	34.81	43.19	31.41E	28.23	28.35	1
2	28.42	28.51	28.10	29.44	34.86	29.02	35.12E	34.18	41.63	30.41E	28.22	28.43	2
3	28.30	28.50	28.04	28.82	43.24	28.83	34.71	34.94E	39.91	29.99E	28.48	28.20	3
4	28.22	28.34	28.01	28.55	42.95	28.67	34.57	37.00E	37.83	29.83E	28.59	28.01	4
5	28.22	28.48	28.01	28.41	39.42	28.53	33.57	37.92E	35.65	30.03E	28.77	28.14	5
6	28.29	28.56	28.00	28.34	37.93	28.46	31.22	38.32E	34.38	29.85E	28.44	28.12	6
7	28.46	28.58	27.99	28.29	35.89	28.49	34.13	39.39E	32.84	29.69E	28.23	28.33	7
8	28.24	28.59	27.99	28.24	35.58	28.99	39.54	41.29E	34.02	29.57E	28.28	28.47	8
9	28.12	28.57	27.99	28.20	35.78	28.54	40.66	42.56E	35.52	29.43E	28.23	28.63	9
10	28.19	28.49	27.98	28.19	36.37	28.35	40.09	43.84E	35.76	29.31E	28.24	28.24	10
11	28.40	28.45	27.99	28.19	39.41	28.30	39.10	45.05	36.28	29.07E	28.24	28.30	11
12	28.97	28.40	27.99	28.17	39.21	29.84	43.18	45.62	37.22	28.91E	28.34	28.46	12
13	29.12	28.39	27.98	28.15	38.50	30.34	44.62	45.40	36.63E	28.92E	28.20	28.82	13
14	29.30	28.41	27.99	28.13	38.59	30.28	40.00	43.95E	34.10E	28.97E	28.06	29.13	14
15	29.46	28.41	28.00	28.10	38.04	30.01	37.34	40.90E	34.42	28.96E	28.12	28.79	15
16	29.42	28.45	28.13	28.05	37.58	29.72	38.69	37.36E	38.17	28.72E	28.20	28.56	16
17	29.01	28.56	28.49	27.96	37.43	31.16	40.20	35.20E	38.66	28.92	28.05	28.49	17
18	28.57	28.58	28.61	27.90	37.24	33.65	38.68	36.04E	39.62	29.03	28.06	28.52	18
19	28.37	28.54	28.49	27.87	36.43	31.49	36.69	39.56E	39.88	28.94	28.18	28.54	19
20	28.31	28.59	29.61	27.85	35.39	29.91	36.60	41.94E	37.04	28.82	28.09	28.68	20
21	28.29	28.64	30.25	27.83	34.52	29.16	38.57	43.37	37.05	28.86	27.96	28.83	21
22	28.74	28.66	30.17	27.78	33.22	28.75	41.05	44.25	37.17	28.72	28.01	28.81	22
23	28.17	28.64	30.35	27.73	32.99	28.61	41.41	44.67	35.91	28.64	28.30	29.09	23
24	28.17	28.59	30.43	27.68	32.84	29.21	40.59	44.77	32.71	28.42	28.09	28.75	24
25	28.35	28.58	30.34	27.64	32.76	31.96	38.92	44.77	31.79	28.30	28.28	28.62	25
26	28.42	28.61	29.42	27.60	32.15	30.67	38.65	44.75	31.36	28.19	28.22	28.57	26
27	28.47	28.65	28.83	27.57	30.40	29.50	38.62	44.50	30.83	28.18	28.19	28.63	27
28	28.50	28.65	28.57	27.55	29.67	29.50	37.56	43.53	30.35	28.47	28.13	28.70	28
29	28.52	28.54	29.00	27.53		36.84E	36.50	42.96	31.01	28.44	28.09	28.74	29
30	28.52	28.33	30.50	27.53		36.86E	35.80	43.39	31.75	28.45	28.18	28.92	30
31	28.50		30.61	27.56		36.41E		43.48		28.34	28.12		31

CREST STAGES

E - Estimated
 NR - No Record
 NF - No Flow

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-	3-63	2400	44.2	4-17-63	0700	40.4	5-24-63	2400	44.9		
4-10-63	0200	41.8	4-23-63	1930	41.5	6-1-63	0000	43.1			
4-13-63	1040	45.0	5-12-63	1600	45.8						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.&R. M.O.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 41 57	121 10 08	SW 2 3S 7E					MAR 50-DATE	1950	1951	0.00	USED
								1951		0.00	USCGS
								1951		3.60	USED

Station located 0.6 mi. NW of Bacon and Gates Road Junction, 3.7 mi. SW of Ripon.

TABLE B-84

DAILY MEAN GAGE HEIGHT

STANISLAUS RIVER NEAR MOUTH

IN FEET

STATION NO	WATER YEAR
803105	1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT.	DAY
1	NR	16.63	16.65	18.23	16.01	18.80E	23.76	23.14	28.22	19.05	15.44	15.63	1
2	16.54	16.63	16.59	17.63	19.69	18.32	23.07	22.34	27.57	18.09	15.37	15.88	2
3	16.36	16.66	16.45	17.06	26.91	17.94	22.21	22.13	26.47	17.59	15.62	15.60	3
4	16.28	16.56	16.46	16.86	28.10	17.63	21.96	23.77	25.53	17.32	16.09	15.56	4
5	16.30	16.53	16.33	16.73	26.61	17.17	21.44	24.25	23.91	17.28	15.93	15.69	5
6	16.46	16.38	16.33	16.61	26.18	16.99	19.58	24.61	22.56	17.48	15.83	15.33	6
7	16.84	16.48	16.36	16.49	25.18	16.86	20.22	24.85	21.10	17.35	15.72	15.46	7
8	16.52	16.48	16.44	16.49	23.70	17.08	24.70	26.01	21.13	17.29	15.68	15.89	8
9	16.16	16.51	16.47	16.48	23.28	16.96	25.64	26.57	22.21	17.12	15.60	16.08	9
10	16.21	16.55	16.43	16.54	23.43	16.64	26.26	27.07	22.42	16.90	15.76	15.69	10
11	16.60	16.52	16.32	16.46	25.44	16.34	25.25	28.00	22.89	16.70	15.74	15.71	11
12	16.90	16.42	16.36	16.48	25.78	16.87	27.43	28.93	23.78	16.52	15.70	15.99	12
13	17.42	16.40	16.42	16.44	25.26	17.67	28.70	29.08	23.31	16.38	15.44	16.45	13
14	17.46	16.32	16.44	16.38	25.41	17.76	26.53	28.03	21.42	16.43	15.25	16.73	14
15	17.58	16.34	16.39	16.33	26.32	17.65	24.32	25.94	20.60	16.51	15.11	16.56	15
16	17.64	16.38	16.42	16.28	25.75	17.55	25.25	23.90	23.33	16.35	15.10	16.29	16
17	17.28	16.47	16.48	16.22	25.04	18.23	26.28	22.51	24.03	16.07	15.34	16.21	17
18	16.89	16.52	16.57	16.18	24.67	20.51	25.24	22.18	24.19	16.04	15.47	16.21	18
19	16.65	16.53	16.69	16.14	24.22	19.25	23.79	23.97	24.93	16.12	15.58	16.10	19
20	16.50	16.52	17.22	16.12	23.79	18.05	23.77	26.15	23.30	16.09	15.70	16.22	20
21	16.50	16.65	17.90	16.09	22.96	17.20	24.84	27.05	23.80	16.09	15.30	16.44	21
22	16.46	16.69	18.03	16.06	21.88	16.73	26.44	27.74	24.21	16.06	15.32	16.41	22
23	16.36	16.69	18.17	16.02	21.52	16.74	26.71	28.22	23.47	15.84	15.57	16.78	23
24	16.31	16.67	18.20	15.99	21.21E	16.81	26.50	28.39	21.11	15.79	15.55	16.58	24
25	16.45	16.67	18.21	15.96	20.87E	18.80	25.57	28.61	19.79	15.67	15.72	16.35	25
26	16.54	16.67	17.71	15.92	20.40E	18.15	25.33	28.77	18.90	15.56	15.48	16.39	26
27	16.58	16.69	17.10	15.89	19.55E	17.24	25.34	28.79	18.42	15.44	15.64	16.23	27
28	16.62	16.73	16.89	15.87	19.11E	17.25	24.94	28.14	17.93	15.43	15.30	16.17	28
29	16.64	16.77	16.87	15.86		22.05	23.92	27.73	18.19	15.67	15.39	16.45	29
30	16.64	16.73	17.90	15.88		24.58	23.48	28.11	19.03	15.48	15.68	16.37	30
31	16.64		18.26	15.91		23.83		28.34		15.37	15.61		31

E - Estimated
NR - No Record
NF - No Flow

CREST STAGES

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-4-63	0850	28.30	4-13-63	1610	28.93	5-13-63	0450	29.22			
2-15-63	1030	26.44	4-17-63	0800	26.42	5-27-63	1000	28.88			
4-10-63	0610	26.71	4-24-63	0800	26.29	5-31-63	1950	28.35			

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 40 02	121 13 41	SW17 3S 7E				SEP 51-DATE	SEP 51-DATE	1951 1959	1959	1.11 0.00	USCGS USCGS

Station located 1.9 mi. above mouth, 7.7 mi. SW of Ripon. Backwater from San Joaquin River at times affects the stage-discharge relationship. Prior records available at other sites. Drainage area 1,091 sq. mi. Altitude of gage is approx. 25 ft. (from U.S.G.S. topographic map).

TABLE B-85

DAILY MEAN GAGE HEIGHT
SAN JOAQUIN RIVER NEAR VERNALIS
 IN FEET

STATION NO	WATER YEAR
807020	1963

DAY	OCT.	NOV.	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	DAY
1	11.43	12.16	13.62	13.17	12.95	16.29	20.31	19.99	23.71	15.11	NR	11.49	1
2	11.48	12.17	13.56	13.15	15.38	15.79	14.39	19.23	23.36	14.62	NR	11.60	2
3	11.50	12.17	13.10	12.79	20.72	15.36	17.66	18.24	22.68	14.39	NR	11.62	3
4	11.54	12.17	12.83	13.29	23.03	14.96	17.35	18.49	22.11	13.53	NR	11.61	4
5	11.62	12.14	13.13	13.28	22.95	14.14	16.92	18.58	20.97	13.35	NR	11.59	5
6	11.63	12.00	13.32	12.89	22.72	13.96	15.73	18.67	19.60	13.18	NR	11.59	6
7	11.76	11.89	13.55	NR	22.18	13.68	15.43	18.54	18.33	13.03	NR	11.58	7
8	11.70	11.91	13.75	NR	20.28	13.41	18.00	18.65	17.71	13.52	NR	11.64	8
9	11.37	11.97	13.69	12.81	NR	13.22	19.97	18.91	17.95	13.50	NR	11.74	9
10	11.20	12.00	13.28	13.03	NR	13.01	21.25	19.39	18.27	13.50	NR	11.78	10
11	11.32	12.02	13.05	12.88	NR	NR	20.90	20.24	18.44	13.58	NR	11.77	11
12	11.62	12.03	13.56	13.03	NR	NR	22.34	22.06	19.57	13.26	NR	11.69	12
13	12.30	12.05	13.52	13.08	NR	NR	23.35	23.12	18.86	13.30	NR	11.71	13
14	12.79	12.06	13.49	12.74	NR	NR	21.95	22.67	16.39	13.07	NR	11.87	14
15	12.97	12.12	13.28	NR	22.91	11.98	19.96	21.19	15.17	12.84	NR	NR	15
16	13.02	12.17	13.22	NR	22.36	11.97	21.21	19.78	16.62	NR	NR	NR	16
17	12.83	12.21	13.06	NR	21.34	12.54	21.90	18.65	17.41	NR	NR	12.63	17
18	12.49	12.22	12.84	NR	20.83	13.53	20.48	17.79	16.82	NR	NR	12.64	18
19	12.26	12.20	13.38	NR	20.51	13.12	19.47	18.23	17.96	NR	11.39	12.65	19
20	12.13	12.13	13.71	NR	20.50	NR	19.62	19.93	18.31	NR	11.39	12.67	20
21	12.08	12.18	13.97	NR	19.53	12.17	20.62	20.94	19.85	NR	11.37	12.74	21
22	12.01	12.20	14.25	NR	18.71	11.92	21.60	21.55	20.63	NR	11.31	12.86	22
23	11.84	12.24	14.37	NR	18.37	11.97	21.72	22.09	20.07	NR	11.32	13.08	23
24	11.69	12.18	14.10	NR	17.97	12.15	21.70	22.37	18.25	NR	11.38	12.96	24
25	11.75	12.41	13.82	NR	17.43	NR	21.23	22.89	16.97	NR	11.45	12.87	25
26	11.85	12.76	13.71	NR	17.09	12.76	21.03	23.31	15.64	NR	11.55	12.77	26
27	11.94	12.70	13.25	NR	16.90	12.49	21.11	23.52	14.95	NR	11.50	12.61	27
28	12.02	13.15	13.48	NR	16.60	12.54	20.99	23.15	14.30	NR	11.33	12.39	28
29	12.08	13.31	13.25	NR	NR	NR	20.01	22.96	14.06	NR	11.21	12.20	29
30	12.13	13.47	13.44	NR	NR	19.35	19.67	23.49	14.80	NR	11.36	12.12	30
31	12.15	NR	13.47	NR	NR	20.08	NR	23.77	NR	NR	11.43	NR	31

CREST STAGES

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
2-4-63	2000	23.27	4-17-63	0600	22.12						
2-15-63	1500	23.09	5-13-63	1400	23.20	5-31-63	1400	23.80			
4-13-63	1400	23.35	5-27-63	1100	23.55						

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T.B.R. M.D.B.M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C.F.S.	GAGE HT.	DATE			FROM	TO		
37 40 34	121 15 51		79000	27.75	12-9-50	JUL 22-DEC 23 JAN 24-FEB 25 JUN 25-OCT 28 MAY 29-DATE	JUL 22-DEC 23 JAN 24-FEB 25 JUN 25-OCT 28 MAY 29-DATE	1931	1959	8.4	USED
										5.06 0.00	USCGS USCGS

Station located 30 ft. above the Durham Ferry Highway Bridge, 3 mi. below the Stanislaus River, 3.4 mi. NE of Vernalis. Records furnished by U.S.G.S. Drainage area is approx. 14,010 sq. mi.

TABLE B--
DIVERSIONS - SAN JOAQUIN RIVER
(Vernalis to Fremont Ford Bridge)
October 1962 through September 1963

Water User	Mile and Bank of Pump	Number and Size of Pump	Monthly Diversion in Acre Feet												Total Diversion Oct. - Sept. Acre Feet
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
DURHAM FERRY BRIDGE	76.														
GAGING STATION - SAN JOAQUIN RIVER NEAR VERNALIS	76.7														
Cook Land and Cattle Company	76.98	1-14" 1-20"	110	3		1					222	540	433	173	1482
Cruze, Trudel and Gilmeister	79.48	1-20"	2	1				1	1	38	58	50	166	94	411
STANISLAUS RIVER	79.78														
Faith Ranch	79.88	1-16"		75				41			119	295	423	255	1188
W. C. Blewett Estate	80.7L	1-12"						219	22		332	40	578	160	1351
W. C. Blewett Estate	81.8L	2-12" 1-14"	64					314		435	660	1055	1099	350	3977
GAGING STATION - SAN JOAQUIN RIVER AT MAZE ROAD BRIDGE	81.85														
Blewett Mutual Water Company	81.95L	1-10" 2-12"	43					394		1262	954	1051	1050	530	5284
El Solyo Water District	82.0L	1-10" 1-16" 3-18"	168					964	238	2040	2458	2730	2455	1301	12350
GAGING STATION - SAN JOAQUIN RIVER AT HETCH HETCHY AQUEDUCT CROSSING	82.65														
El Solyo Ranch	82.9L	1-16"	32							71	59	199	242	250	853
El Solyo Ranch	83.5L	1-12"	1							23	20	26	27	32	131
El Solyo Ranch	83.7L	1-12"	33							114	86	232	244	146	855
Faith Ranch	84.48	1-16" 1-20"	122	56	43			378	64	449	572	736	792	623	3835
TUOLUMNE RIVER	91.08														
GAGING STATION - SAN JOAQUIN RIVER AT WEST STANISLAUS IRRIGATION DISTRICT INTAKE CANAL	91.8L														
WEST STANISLAUS IRRIGATION DISTRICT INTAKE CANAL	91.8L														
West Stanislaus Irrigation District	91.8L	1-12" 1-24" 6-26"	1260	493	277	577	0	4597	583	10660	13240	12820	9222	4662	58390
Fred Lara #1	** (0.65)	1-14"		45		1		81		255	369	147	380	77	1355
Frank Sarmiento #1	** (0.78)	3-16" a	94					106		302	192	370	351	290	1705
Frank Sarmiento #2	** (1.18)	1-14" 1-16"	68					292	1	701	632	385	556	404	3039
Fred Lara #2	** (2.25)	1-16"				12		13		7	37	48	65	28	210
Frank Sarmiento #3	** (2.38)	2-16"	125					176		391	373	391	363	373	2192
J. V. Steenstrup Estate	93.18	1-12" 1-14"						70		328	476	706	846	535	2961
T. C. Daily	94.1L	1- 3" 1- 6"						25	16	66	60	74	101	22	364
Rancho Dos Rios	94.78	1-12"			34	1		54	1	192	279	345	338	280	1583
E. L. Brazil	95.58	1-16"		59	3		3	115		90	90	161	122	43	686
Charles Correia	95.88	1-10"										51	51		102
GAGING STATION - SAN JOAQUIN RIVER AT GRAYSON	95.95L														
Island Dairy (d)	96.0L	1-18"			27			137		512	402	476	435	227	2216
LAIRD SLOUGH BRIDGE	96.05														
E. S. Brush	96.58	1- 7"								61	85	84	62	58	350
Rancho El Pegadero	96.9L	1-18"	51	18	45			191		584	232	477	470	259	2327
GAGING STATION - SAN JOAQUIN RIVER AT PATTERSON BRIDGE	104.4L														
Patterson Water District	104.4L	1-14" 2-18" 3-20" 1-36"	150					848		5878	7684	7948	7948	7903	38370
Chase Brothers	104.58	1-18"	13	13				28		49	167	280	598	276	1424
PATTERSON BRIDGE	104.6														
Chase Brothers	106.58	1-12"	23	24				98		319	535	517	445	271	2232
Tony Spanell	109.18	1-12"	40					27		57	12	39	69	44	288
Twin Oaks Irrigation Company	109.8L	1-12" 2-16" 1-18"	328	45	86			562		1962	1913	1338	1880	1015	91294
T. J. Henderson	111.88	2- 8"	108							95	35	77	19	87	421
L. A. Thompson	112.55P	1-18"	54					63		49	94	241	242		743
Frank C. Mosier	113.48	1-12"	115	2	4			100	20	189	153	155	156	130	1024
GAGING STATION - SAN JOAQUIN RIVER AT CROWS LANDING BRIDGE	113.4														
Frank C. Mosier	114.638	1- 8"						No Diversion							
Manuel A. Serpa	114.759	2-10"						227		229	631	577	479	107	2251
ORESTIMBA CREEK	115.2L														
Roy F. Crow	115.8L	1-10"						9	23	61	137	192	366	144	932
L. B. Crow	116.01E	1-14"	77		54			29		180	137	168	217	81	947
John W. Greer	116.58	1-12"	2					111	22	195	46	80	82		538

TABLE B-86

DIVERSIONS - SAN JOAQUIN RIVER
(Vernalis to Fremont Ford Bridge) (Continued)
October 1962 through September 1963

Water User	Mile and Rank *	Number and Size of Pump	Monthly Diversion in Acre-Feet												Total Diversion Oct.-Sept. Acre-Feet
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
Stevinson Water District	121.3R	1-18"	2	3						95	190	204	183	81	758
MERCED RIVER SLOUGH	122.2R														
GAGING STATION - SAN JOAQUIN RIVER NEAR NEWMAN	123.7														
MERCED RIVER	123.75R														
Stevinson Corporation	129.1L	1-16"			6		128			62	151	30	130	68	575
<u>VERNALIS TO FREMONT FORD BRIDGE</u>															
Total			3152	837	579	592	132	10250	991	28000	33890	35340	33680	21380	168800
Average cubic feet per second			51	14	9	10	2	166	17	455	570	574	548	360	233
Monthly use in percent of seasonal			1.9	0.5	0.3	0.4	0.1	6.1	0.6	16.6	20.1	20.8	20.0	12.6	

* Mileage along San Joaquin River from its mouth, 4.5 miles below Antioch.

** West Stanislaus Irrigation District Canal. The intake canal joins the San Joaquin River at mile 91.8L. Distance from the river and the bank is shown in parentheses.

a One 16" unit was removed in 1963.

b Replaces a 12" unit.

c Includes an undetermined amount of water returned to river by spill.

d Formerly listed as W. F. Cook

TABLE B-87

DIVERSIONS - SAN JOAQUIN RIVER
(Fremont Ford Bridge to Gravelly Ford)
October 1962 through September 1963

Water User	Mile and Bank *	Number and Size of Pump	Monthly Diversion in Acre-Feet												Total Diversion Oct - Sept, Acre-Feet
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
GAGING STATION - SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE	129.5														
GAGING STATION - SAN JOAQUIN RIVER NEAR DOS PALOS	186.0														
San Luis Canal Company (a)	186.6L	Gravity	7449	3574	2100	3386	4326	11203	12077	21955	26852	28133	25837	16623	163535
FIREBAUGH BRIDGE	198.4														
GAGING STATION - SAN JOAQUIN RIVER NEAR MENDOTA	206.2														
MENDOTA DAM	208.63														
Central California Irrigation District (a)	208.8L	Gravity	21012	12277	3311	4806	10989	47353	28719	72893	81878	87742	84987	41667	497634
FRESNO SLOUGH	δ 209.0L														
DELTA-MENDOTA CANAL (0.2L)															
Firebaugh Canal Company (a)	(0.4L)		1203	369	234		591	5216	4840	10494	12361	14168	14168	4973	68617
M. Jensen (b)								No Diversion							
M. L. Dudley δ (3.4L)								405	268	444	434	595	309	46	2501
State of California Mendota Waterfowl Management (b)	δ (6.45-8.20)	1-16"	3917	2174	700				30	234	2319	2670	2533	3112	17689
Fresno Slough Water District (b)	δ (9.20-10.50)						60	736	16	341	1309	1037	1111	192	4802
JAMES BYPASS δ (11.80R)															
Traction Water District (b)	δδ(0.75)		524	315	50		54	559	214	623	748	619	668	494	4868
Reclamation District 1606 (b)	δδ(1.50)						22	67		67	153	171	167	14	661
James Irrigation District (b)	δδ(4.4)						1093	4941	1513	990	5619	7182	6028	496	27862
Tranquillity Irrigation δ(12.00-13.75) District (b)			204				1777	4066				557	6306	1414	14324
Melvin D. Hughes (b)	δ (12.20)							30			36				66
LONE WILLOW SLOUGH	219.8R														
Columbia Canal Company (a)	219.8R		3368	2846	1006	40	3207	4372	6668	8255	8664	8785	8959	5786	61956
State Center Duck Club (c) (b)				141	129									4	274
C. Sawall (d) (b)								No Diversion							
Mendota Duck Club (e) (b)								No Diversion							
M. Beck (f) (b)			44	10											54
E. P. Jennings (b)			6					52	58	4	22	10	28		180
F. A. Yearcut (b)							77	102	26	87	161	115	209		777
Tulle Gun Club (g) (b)								No Diversion							
GAGING STATION - SAN JOAQUIN RIVER AT WHITEHOUSE	219.83														
GRAVELLY FORD CANAL	232.8R														
<u>FREMONT FORD BRIDGE TO GRAVELLY FORD</u>															
Total			37747	21706	7530	8232	22196	79102	54429	116387	140556	151804	151310	74821	B65800
Average cubic feet per second			614	365	122	134	400	1286	915	1893	2362	2469	2461	1257	1196
Monthly use in percent of seasonal			4.4	2.5	0.9	1.0	2.6	9.1	6.3	13.4	16.2	17.5	17.5	8.6	

* Mileage along San Joaquin River from its mouth 4.5 miles below Antioch.

δ Plant is located in Fresno Slough which diverts from San Joaquin River at mile 209.0L. Distances from San Joaquin River and bank are shown in parentheses.

δδ Plant is located on James Bypass which diverts from Fresno Slough at Mile δ (11.80R). Distances from Fresno Slough and bank are shown in parentheses.

(a) Records furnished by contracting entities.

(b) Records furnished by U.S. Bureau of Reclamation.

(c) 1-6" pump located on arm of slough, at SW corner S.12, T14S, R15E.

(d) 1-8" pump located on arm of slough, 1500' W of SE corner, S.18, T14S, R16E.

(e) 1-3" pump located on arm of slough, at S ¼ corner, S.11, T14S, R15E.

(f) 1-8" pump located on arm of slough, 1400' S of NE corner, S.24, T14S, R15E.

(g) 1-8" pump located on arm of slough, adjacent to N. Beck.

TABLE B-88
DIVERSIONS - SAN JOAQUIN RIVER
(Gravelly Ford to Friant Dam)
October 1962 through September 1963

Water User	Mile and Bank	Number and Size of Pump	Monthly Diversion in Acre-Feet												Total Diversion Oct.-Sept Acre-Feet
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
W. A. Kochergren 1	233.66R	1-6"	31								23	71	38	19	182
Dewey W. Johnson 1	235.33R	1-5" 1-10"						10	11	5	24	32	54	30	166
Hansen, Smith and McIntuf	237.33L	1-8"		10				33	18			46			107
J. A. Peterson (a) (c)	237.98R	1-6"													
--SKAGGS BRIDGE--	238.18														
A. and M. Overgaard	243.84R	1-5" 1-6"	5		3	2	1	32	20	19	52				134
--U. S. 99 HIGHWAY BRIDGE--	247.38														
--SANTA FE RAILROAD BRIDGE--	249.23														
Miller Brothers	251.46L	1-6"	8			3	1			37	62	73	69	36	289
L. L. Howard (c)	254.93R	1-6"													
Sycamore Island Stock Ranch 5	(b) 255.34R	1-6"						3			20	82	77		182
Oscar Spano River Ranch 1	257.10L	1-16"	11					14	33	100	120	158	165	124	725
Oscar Spano River Ranch 2	257.70L	1-12"	33	3				34	16	81	79	92	70	54	464
L. D. Cobb	258.08R	1-6" 1-7"						43		53	149	208	134	30	617
--STATE HIGHWAY 41 BRIDGE--	258.33														
R. J. Curtis	258.39L	1-4" 1-7"						89	35	55	40	100	56	68	443
W. E. Roberts 2	258.90L	1-12"	17		1	1	1	1	33	90	85	80	82	392	
J. E. Cobb	259.39R	2-6"	2	4			18	40		3	56	76	75	7	281
--OLD LANES BRIDGE--	259.78														
J. E. Cobb 3	260.40R	1-6"	49	17		4	4	40	8	91	142	95	124	80	654
R. C. Arnold	261.53R	1-4" 1-5"		2				14		36	66	123	96	26	363
Duane N. Folsom	261.70L	1-6"	64	19				15	12	28	89	136	156	76	595
E. G. Rank, Jr.	262.32L	1-5"	21	10	3	1		8		27	68	70	79	36	323
Dale McCoon 1	262.60R	1-5"						57	5		65	76	77	6	286
W. H. Rohde	262.66L	1-7"	3			52	10		4	1	45	75	78	19	287
Dale McCoon 2	263.40R	1-7"						96	7		101	127	114	8	453
Dale McCoon 3	263.48R	1-6"						43	2		95	116	77	2	335
H. K. Jensen	263.76R	1-5"		35	1	11	10			40	83	100	98	71	449
H. W. Ball 4 (c)	264.08L	1-6"													
Ike D. Ball	264.60R	1-6"	37	26				32		80	113	117	116	88	609
W. F. Ball	264.83L	1-4" 1-5"	30	20	6	5	4			51	47	102	75	46	386
Virgil Durando	267.56L	1-8"	32		13	10	8	4	12	27	160	212	219	146	843
--GAGING STATION - SAN JOAQUIN RIVER BELOW FRIANT--	268.13L														
--FRIANT BRIDGE--	268.88														
--COTTONWOOD CREEK--	269.53R														
--FRIANT DAM--	269.63														
GRAVELLY FORD TO FRIANT DAM															
Total			343	146	27	89	57	608	184	767	1789	2372	2127	1054	9563
Average cubic feet per second			6	2.5	0.4	1.4	1.0	9.9	3.0	12	30	39	35	18	13
Monthly use in per cent of seasonal			3.6	1.5	0.3	0.9	0.6	6.4	1.9	8.0	18.7	24.8	22.3	11.0	

* Mileage along San Joaquin River from its mouth 4½ miles below Antioch.
a Monthly diversion for October published in error as D in 1962 report. Should have been 18 acre-feet.

b Not published in 1962 report. 174 acre-feet were diverted during 1962 diversion year.
c Data not published as current 3-year seasonal average is less than 200 acre-feet.

TABLE B-89
DIVERSIONS - MERCED RIVER
October 1962 through September 1963

Water User	Mile and Bank above Mouth	Number and Size of Pump	Monthly Diversion in Acre-Feet												Total Diversion Oct. - Sept. Acre-Feet
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	
HILLS FERRY BRIDGE	1.1														
Stevenson Water District #1	1.8R	1-16"					57			73	252	445	185	32	1044
Stevenson Water District #2	3.8R	1-16"	100	16	3	2	89	215		644	626	835	851	524	3905
Milton Gordon	4.3L	1-10"	17	8	6	4	5	3	2		14	32	27	19	137
GAGING STATION - MERCED RIVER NEAR STEVENSON	4.6														
Maria DeAngelis	5.8L	1-12"								36	48	56	24	36	200
Stevenson Water District	6.1L	1-20"	32	49	8		42	434		225	795	466	577	171	2819
Stevenson Water District #3	7.7L	1-20"	192	74			18	126		103	68	46	222	11	860
Manuel Clementino	8.5L	1-12"									31	77	38	27	173
Manuel Clementino	8.9L	1-12"								14	51	62	70	35	232
Samuel B. McCullagh	9.4L	1-8"		34				11		107	220	90	48	510	
Mrs. J. R. Jacinto	9.6L	1-12"	47				14			33	70	130	59	45	398
Mrs. J. B. Silva, E. and J. Gallo Winery Ranch L. Alves and A. Mattos	10.35L	1-10"	54	12	5	6	2	6	3	164	198	458	119	117	1144
R. E. Prusso and John Vierra	10.9L	(a) 1-8" 1-12"	66	13						57	113	87	121	88	545
Manuel Freitas	10.9L	1-12"	30	30						59	100	100	105	108	532
E. and J. Gallo Winery Ranch	11.6L	1-18"	245	30				54	43	50	350	461	289		1522
MILLIKEN BRIDGE	11.65														
E. and J. Gallo Winery Ranch	12.35L	1-10"	5	74	6			3	4			61	7		160
Anthony L. Calderia	12.58	1-12"	9					7		18	29	60	27	55	205
E. and J. Gallo Winery Ranch	12.85L	1-12"	5	111	19			5	27	12	231	274	30		714
J. M. Souza	14.5L	1-10"	32								57	136	88	35	348
GAGING STATION - MERCED RIVER NEAR LIVINGSTON	16.49														
E. and J. Gallo Winery Ranch	16.5L	1-14"		127	49	9	2		15	11	195	180	134		722
J. E. Gallo	20.4L	1-8" (b)	1	94	52			124	14	3	178	176	8		650
U.S. HIGHWAY 99 BRIDGE	21.04														
SOUTHERN PACIFIC RAILROAD BRIDGE	21.05														
Gallo Cattle Company	22.2R	1-8" 1-16"	57	178	10	2	1	175	27	235	338	475	300	237	2035
Gallo Cattle Company	22.8R	1-12" 1-15"	180	73	72			121	24	146	315	415	359	132	1837
Merced River Farms Association	26.3R	1-8"	12				19	5		33	81	78	97	32	357
SANTE FE RAILROAD BRIDGE	27.05														
W. C. Magnuson	27.5R	1-10"	14							1	72	81	103	92	363
GAGING STATION - MERCED RIVER AT CRESSEY	27.55														
CRESSEY BRIDGE	27.55														
Manuel Silva	29.9R	1-6" 1-10"									45	81	50	47	223
Manuel Silva	30.95R	1-12"									99	137	95	84	415
Rancho Con Valor	31.1L	1-8"		1						97	107	111	84	57	457
Manuel Silva	31.4R	1-10"								155	226	226	213	146	966
P. Hilarides	32.3L	1-12"		59								5	39	2	105
SHAFER BRIDGE	32.5														
Harry P. Schmidt and Son	33.1R	1-10"									93	55	110	18	276
Walter Bettencourt	34.45L	1-12"						No Diversion							
W. F. Bettencourt, P. Hilarides and Cowell Lime and Cement Company	36.9L	Gravity	180	83	155	179	89	58	362	598	803	1414	1341	802	6064
Amsterdam Orchards Incorporated (c)	39.1L	1-14"					83	123	12	27	40	23	13		321
Ratzlaff Brothers	40.2L	1-4"								21	43	53	46	26	189
COX FERRY BRIDGE	42.1														
Cowell Ditch	45.3R	Gravity	658	496	772	849	397	4899	2717	3650	2791	4151	3812	3126	26320
GAGING STATION - MERCED RIVER BELOW SNELLING	46.2														
MERCED RIVER															
Total			1936	1564	1157	1051	818	4358	3250	6476	8566	11640	4733	6152	56750
Average cubic feet per second			31	26	19	17	15	71	55	105	144	190	158	103	78
Monthly use in percent of seasonal			3.4	2.8	2.0	1.9	1.4	7.7	5.7	11.4	15.1	20.6	17.2	10.8	

a A 5" unit was removed in 1963.
b Replaces a 7" unit.
c Formerly listed as Reimero Brothers.

TABLE B-4
DIVERSIONS - TUOLUMNE RIVER
October 1962 through September 1963

Water User	Mile and Bank above Mouth	Number and Size of Pump	Monthly Diversion in Acre-Feet												Total Diversion Oct. - Sept Acre-Feet
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	
E. T. Mape	1.3R	1-14"	253	264	50	19		292		589	541	988	935	664	4595
J. V. Steenstrup Estate	1.9L	2-12"						72	1	171	400	509	595	132	1880
J. V. Steenstrup Estate	2.9L	1-10"			1	1	1	319	45	185	506	331	452	213	2054
GAGING STATION - TUOLUMNE RIVER AT TUOLUMNE CITY (SHILOH BRIDGE)	3.35														
Bancroft Fruit Farms	5.0R	1-10"	4					22	3	38	56	59	41	53	276
Della Battestin	5.9L	1-14"						No Diversion							
Western Farms	6.3L	1-16"				1				9	78	115	143	65	411
Eugene Boone, Galen Hartwich and Dr. Harold Willis	7.1R	1-10"								94	75	83	79	48	379
Beth Wootten	8.4R	1-10"	19							10	46	60	56	62	253
Ella T. Rahilly Estate	8.5L	1-10"								41	29	58	43	51	222
A. C. Watkins Estate	9.4L	1-20"	62	82	1			73		41	103	36	68	20	486
A. C. Watkins Estate	9.6L	1-12"	116					Plant Removed							116
McClure Ranches	9.7R	1-21"							19	33	106	64	63	43	328
Raymond Boone	10.2R	1-14"	4							25	162	126	107	100	524
CARPENTER ROAD BRIDGE	12.9														
SEVENTH STREET BRIDGE	15.75														
SOUTHERN PACIFIC RAILROAD BRIDGE	15.8														
U.S. HIGHWAY 99 BRIDGE	16.05														
GAGING STATION - TUOLUMNE RIVER AT MODESTO	16.05														
DRY CREEK	16.5R														
EAST MODESTO BRIDGE	19.3														
Jack Gardella	20.3R	1-10"	4					11		36	51	34	40	27	203
SANTA FE RAILROAD BRIDGE	21.6														
SANTA FE ROAD BRIDGE	21.65														
Mrs. A. L. Leib (a)	22.8R	1- 3" 1- 6"	4							20	11	30	30	7	102
GEER AVENUE BRIDGE	26.0														
Michel Investment Company	28.8R	1- 8"	15	1						41	95	76	108	40	376
J. W. and Lola May Short	29.8L	1-10"		5							13	77	44	37	176
Firpo Ranch	30.2L	1-10"	36	3	16			14		51	65	95	83	87	450
SOUTHERN PACIFIC RAILROAD BRIDGE (OAKDALE BRANCH)	31.5														
A. E. Ketcham Estate	39.4R	1- 8"	11	33						20	92	83	93	56	388
Westley N. Sawyer (b)	39.6R	1- 8" c								13	55	58	46	36	208
GAGING STATION - TUOLUMNE RIVER AT ROBERTS FERRY BRIDGE	39.9														
Westley N. Sawyer	40.8L	1-14"	6							57	87	93	100	46	389
Curtner Zanker	45.7L	1-10"	14		1	1		1	1	38	100	82	79	60	377
Dolling Brothers	46.3R	1- 8"	22							71	68	100	80	95	436
STATE HIGHWAY 132 BRIDGE	47.4														
GAGING STATION - TUOLUMNE RIVER AT LA GRANGE BRIDGE	50.5														
TUOLUMNE RIVER															
Total			570	388	69	22	1	804	69	1583	2739	3157	3285	1942	14630
Average cubic feet per second			9	7	1	0	0	13	1	26	46	51	53	33	20
Monthly use in percent of seasonal			3.9	2.6	.5	.2	0	5.5	.5	10.8	18.7	21.6	22.4	13.3	

a Formerly listed as A. L. Leib
b Formerly listed as George H. Sawyer
c Replaces a 6" unit.

TABLE B-91

DIVERSIONS - DRY CREEK
October 1962 through September 1961

Water User	Mile and Bank above Mouth	Number and Size of Pump	Monthly Diversion in Acre-Feet												Total Diversion Oct. - Sept. Acre-Feet	
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
Podesto and Arata	0.4R	1- 6"						Plant Dropped								
MODESTO-EMPIRE TRACTION COMPANY RAILROAD BRIDGE	0.7															
STATE HIGHWAY 132 BRIDGE (YOSEMITE BOULEVARD)	0.8															
LA LOMA BRIDGE	1.2															
EL VISTA AVENUE BRIDGE	2.9															
GAGING STATION - DRY CREEK NEAR MODESTO	5.3R															
CLAUS ROAD BRIDGE	5.4															
SANTA FE RAILROAD BRIDGE	6.4															
CHURCH STREET BRIDGE	7.2															
WELLSFORD ROAD BRIDGE	8.7															
ALBERS ROAD BRIDGE	11.0															
MODESTO IRRIGATION DISTRICT CANAL CROSSING	11.1															
Edward Johnson	12.6R	1- 6"	6							6	34	49	38	31	164	
Edward Johnson	12.7R	1- 6"	10							61	77	90	74	46	358	
Joe Fagundes	14.7R	1-10"	30	3	11	6	1	59	13	123	150	182	165	103	846	
OAKDALE WATERFORD HIGHWAY BRIDGE	17.4															
<u>DRY CREEK</u>																
Total			46	3	11	6	1	59	13	190	261	321	277	180	1368	
Average cubic feet per second			1	0	0	0	0	1	0	3	4	5	5	3	1.9	
Monthly use in percent of seasonal			3.9	.2	.8	.4	.1	4.3	1.0	13.8	19.0	23.3	20.1	13.1		

TABLE 3-92
DIVERSIONS - STANISLAUS RIVER
October 1962 through September 1963

Water User	Mile and Bank above Mouth	Number and Size of Pump	Monthly Diversion in Acre Feet													Total Diversion Oct - Sept Acre Feet
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
GAGING STATION - STANISLAUS RIVER NEAR MOUTH	1.9R															
Cook Land and Cattle Company and C. M. Carroll	1.9R	1-16"									17	93	28	44	162	
C. C. Anygal	2.4R	1-18"						130	14	148	269	246	142	89	1,468	
Faith Ranch	3.4L	2-12" 1-16"	115	84				255	1	522	577	49	469	411	2,975	
Reclamation District 2064	4.0R	1-14" 1-16" 2-20"	403	111				383		1462	1700	2341	1825	121	9431	
Reclamation District 2075	4.05P	2-16" 1-20"	597	199	40	13		1293		2576	2600	3119	2829	2170	15440	
D. F. Koetitz	4.7L	1-14"	25							208	163	291	257	51	1001	
E. T. Mape	4.75L	1-20"		290				262		61	194	37			844	
Henry Pelucca	5.5L	1-16"								39	113	86	71	76	385	
Alice Gill	6.4L	1-12"	2							46	533	99	76	124	880 a	
D. J. Macedo	8.4R	1-16"						112		342	119	562	349	181	1665	
N. E. Cannon	8.7R	1-10"	58	15				80		420	290	422	388	271	1944	
GAGING STATION - STANISLAUS RIVER AT KOETITZ RANCH	9.35L															
D. F. Koetitz	9.4L	1-12"	113		4					421	357	466	363	199	1923	
John L. Hertle	9.8L	1-10"							40	10	31	39	65	27	212	
Nelson Santos	10.0R	1-16"	39								6	91	39	49	224	
Nelson Santos	10.5R	1-16"	11								73	153	139	124	500	
John L. Hertle	10.7L	1-10"									3		5	23	31	
GAGING STATION - STANISLAUS RIVER AT RIPON	15.7L															
SOUTHERN PACIFIC RAILROAD BRIDGE	15.7															
U.S. HIGHWAY 99 BRIDGE	15.7															
A. Girardi	17.7L	1-16"			1		1			95	412	446	287	34	1276 a	
E. J. Freethy	19.0R	1-14"	26	55				35		19	90	188	157	43	613	
Libby, McNeill and Libby	20.9R	1-14"							12	367	202	305	189	107	1182	
Heath Ranch	21.2L	1- 6"	24					28		15	66	70	41	14	258	
Mark Rumble b	23.4L	1- 8"										5	7	5	17	
MODESTO-ESCALON HIGHWAY BRIDGE	29.6															
F. K. Floden	29.9L	1-10"						No Diversion								
SANTA FE RAILROAD BRIDGE	33.4															
GAGING STATION - STANISLAUS RIVER AT RIVERBANK	33.6															
Oakdale Irrigation District (Crawford pump) c	37.7L	1-14"						10	12	5	176	212	132	5	512 a	
Oakdale Irrigation District (Brady pump) c	39.1L	1-12"								29	140	161	124	137	581 a	
OAKDALE-STOCKTON HIGHWAY BRIDGE	41.2															
SOUTHERN PACIFIC RAILROAD BRIDGE (OAKDALE BRANCH)	41.2															
GAGING STATION - STANISLAUS RIVER AT ORANGE BLOSSOM BRIDGE	47.0															
STANISLAUS RIVER																
Total			1413	754	45	18	1	2596	79	6785	8131	9929	7982	5435	43170	
Average cubic feet per second			23	13	1	0	0	42	1	110	137	161	130	91	60	
Monthly use in percent of seasonal			3.3	1.8	.1	0	0	6.0	.2	15.7	18.8	23.0	18.5	12.6		

a Includes an undetermined amount of water returned to river by spill.

b Formerly listed as Thomas Lyon.

c Oakdale Irrigation District for season of 1963 maintained plants at miles 37.7L and 39.1L to supplement district gravity supply.

TABLE B-93
DIVERSIONS - TULE RIVER
October 1962 through September 1963

Water User	Mile and Rank *	Number and Size of Pump	Monthly Diversion in Acre-Feet											Total Diversion Oct - Sept, Acre Feet
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
SUCCESS DAM	0.0													
GAGING STATION - TULE RIVER BELOW SUCCESS DAM	0.35													
Campbell-Moreland Ditch	a 2.4L	Gravity	422	519	714	719	797			788	1684	1043	1305	853
PORTER SLOUGH	2.4R													
GAGING STATION - PORTER SLOUGH AT PORTERVILLE (B LANE BRIDGE)	** (2.4)													
PIONEER SPILL	** (3.7R)													
Porter Slough Ditch	b ** (4.5R)	Gravity				11	512		5	337	669	870	518	205
GAGING STATION - PORTER SLOUGH NEAR PORTERVILLE (NEWCOMB ROAD)	** (6.1)													
Vandalia Ditch	c 3.1L	Gravity				17	228			125	176	391	65	215
SANTA FE RAILROAD BRIDGE	5.1													
Poplar Ditch	d 5.8L	Gravity		41	43	38	2541	676		588	1507	4558	5939	2141
STATE HIGHWAY 190 BRIDGE	5.9													
SOUTHERN PACIFIC RAILROAD BRIDGE	6.0													
Hubbs-Miner Ditch	e 6.4R	Gravity					169	122		407	590	851	483	793
STATE HIGHWAY 65 BRIDGE	6.6													
Rhodes-Fine Ditch	g 8.4L	Gravity							156	1120	872	115		
OLIVE AVENUE BRIDGE	9.9													
FRIANT-KERN CANAL CROSSING	10.5													
Woods-Central Ditch	i 11.0L	Gravity				24	3227					9483	2763	
GAGING STATION - TULE RIVER BELOW PORTERVILLE	11.8													
OTTIE BRIDGE	14.4													
<u>TULE RIVER</u>														
Total			422	560	757	809	7474	798	161	3355	5498	17350	11070	4207
Average cubic feet per second			7	9	14	13	135	13	3	55	92	282	180	71
Monthly use in percent of seasonal			2.7	1.1	1.4	1.5	14.2	1.5	0.3	6.4	10.5	33.1	21.1	7.8

* Mileage downstream from Success Dam

** Figure in parentheses indicates distance

along Porter Slough from Tule River

a Flow measured at gaging station on Campbell-Moreland Ditch located approximately 2600 feet below head.

b Flow measured at gaging station on Porter Slough Ditch located approximately 150 feet below head.

c Flow measured at gaging station on Vandalia Ditch located approximately 1000 feet below head. The greater portion of this water was used to recharge Vandalia Irrigation District well field.

d Flow measured at gaging station on Poplar Ditch located approximately 4750 feet below head.

e Flow measured at gaging station on Hubbs-Miner Ditch located approximately 3400 feet below head.

f The recorder at this station was deactivated during the following periods: 10-1-62 through 2-1-63 and 2-6-63 through 2-10-63. This recorder was activated prior to anticipated diversion periods upon notification from the Tule River Association. It is assumed there was no flow during these deactivated periods.

g Flow measured at gaging station on Rhodes-Fine Ditch located approximately 3100 feet below head.

h The recorder at this station was deactivated during the following periods: 10-1-62 through 2-1-63, 3-6-63 through 4-17-63, and 8-1-63 through 9-30-63. This recorder was activated prior to anticipated diversion periods upon notification from the Tule River Association. It is assumed there was no flow during these deactivated periods.

i Flow measured at gaging station on Woods-Central Ditch located approximately 100 feet below head.

j The recorder at this station was deactivated during the following periods: 10-1-62 through 1-30-63, 2-26-63 through 6-22-63, and 8-16-63 through 9-30-63. This recorder was activated prior to anticipated diversion periods upon notification from the Tule River Association. It is assumed there was no flow during these deactivated periods.

TABLE 6-94

DIVERSIONS AND ACREAGE IRRIGATED-EAST SIDE CANALS AND IRRIGATION DISTRICTS*
October 1962 through September 1963

Water User													Total	Acreage Irrigated	
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept		General	Rice
FRANT-KERN Canal															
SAN JOAQUIN RIVER															
Total acre-feet diverted	54154	22471	0	1083	61071	74279	163174	221468	243915	237905	260352	173113	1512090		
Average cubic feet per second	881	378	0	18	1100	1208	2742	3602	4099	3869	4234	2909	2090		
Monthly use in percent of seasonal	3.6	1.5	0	0.1	4.0	4.9	10.8	14.6	16.1	15.7	17.2	11.4			
Madera Canal															
Total acre-feet diverted	409	101	0	0	1375	6912	12672	31321	53873	65716	65088	33142	270609		
Average cubic feet per second	7	2	0	0	25	112	213	509	905	1069	1059	557	371		
Monthly use in percent of seasonal	0.2	0	0	0	0.5	2.6	4.7	11.6	19.9	24.3	24.1	12.2			
Merced Irrigation District															
MERCED RIVER															
Main Canal	0	300	310	210	280	23070	35786	85124	104612	104222	92221	65993	512228		
Northside Canal	490	63	63	111	34	776	345	2932	4227	4618	4485	3529	21673		
Total acre-feet diverted	490	363	373	421	314	23846	36131	88056	108839	108840	96706	69522	533901	100284b	5366
Average cubic feet per second	8	6	6	7	6	388	607	1432	1829	1770	1573	1168	737		
Monthly use in percent of seasonal	0.1	0.1	0.1	0.1	0	4.4	6.8	16.5	20.4	20.4	18.1	13.0			
Turlock Irrigation District															
TUOLUMNE RIVER															
Total acre-feet diverted	32610	26297	6224	10199	714	24188	30250	87152	104073	102506	96516	53976	574705	171008d	0
Average cubic feet per second	530	442	101	166	13	393	508	1417	1749	1667	1570	907	794		
Monthly use in percent of seasonal	5.7	4.6	1.1	1.8	0.1	4.2	5.2	15.2	18.1	17.8	16.8	9.4			
Molate Irrigation District															
MOLATE RIVER															
Total acre-feet diverted	19736	6776	32	110	0	15734	26421	50692	66643	56625	43924	38185	324878	66028f	437
Average cubic feet per second	321	114	1	2	0	256	444	824	1120	921	714	642	449		
Monthly use in percent of seasonal	6.1	2.1	0	0	0	4.9	8.1	15.6	20.5	17.4	13.5	11.8			
Waterford Irrigation District															
WATERFORD RIVER															
Total acre-feet diverted	1973	0	0	0	0	11	1072	5714	7182	7348	6391	4912	34603	7232N	
Average cubic feet per second	32	0	0	0	0	0	18	93	121	120	104	81	48		
Monthly use in percent of seasonal	5.7	0	0	0	0	0	3.1	16.5	20.8	21.2	18.5	14.2			
Baldale Irrigation District															
STANISLAUS RIVER															
Northside Canal	5669	130	17	47	0	486	437	18185	23796	21040	20644	17053	107504	19938a	3221
Southside Canal	8009	404	60	0	0	1079	42	28201	32522	29601	29182	23885	152985	33869a	416
Total acre-feet diverted	13678	534	77	47	0	1565	479	46386	56318	50641	49826	40938	260489	53807k	3637
Average cubic feet per second	222	9	1	1	0	25	8	754	946	824	810	688	360		
Monthly use in percent of seasonal	5.3	0.2	0	0	0	0.6	0.2	17.8	21.6	19.5	19.1	15.7			
South San Joaquin Irrigation District															
SOUTH SAN JOAQUIN RIVER															
Total acre-feet diverted	8703	0	0	0	0	5207	5888	34683	40937	45236	41288	28321	210263	63666m	
Average cubic feet per second	142	0	0	0	0	85	99	564	688	736	671	476	290		
Monthly use in percent of seasonal	4.1	0	0	0	0	2.5	2.8	10.5	19.5	21.5	19.6	13.5			

- * Data for Madera and Friant-Kern Canal furnished by USBR.
all other data furnished by individual irrigation districts.
a An additional 83,209 acre-feet of water was pumped from wells.
b Of this acreage, 2,080 was double cropped. It does not include an undetermined amount of riparian water users acreage.
c An additional 114,120 acre-feet of water was pumped from wells.
d Of this acreage, 15,891 was double cropped.
e An additional 39,470 acre-feet of water was pumped from wells.
f Of this acreage, 10,666 was double cropped.
g An additional 506 acre-feet of water was pumped from wells.

- h Of this acreage, 209 was double cropped.
i Of this acreage, 274 was double cropped.
j Of this acreage, 608 was double cropped.
k This acreage also received 32,131 acre-feet of water from wells and controlled drainage.
m This acreage also received an undetermined amount of well water, and an undetermined amount of controlled drainage water from Oakdale Irrigation District. Of this acreage, 3,284 was double cropped. Includes 1,935 acres served by subirrigation.

TABLE B-95
DELIVERIES FROM CENTRAL VALLEY PROJECT CANALS *
October 1962 through September 1963

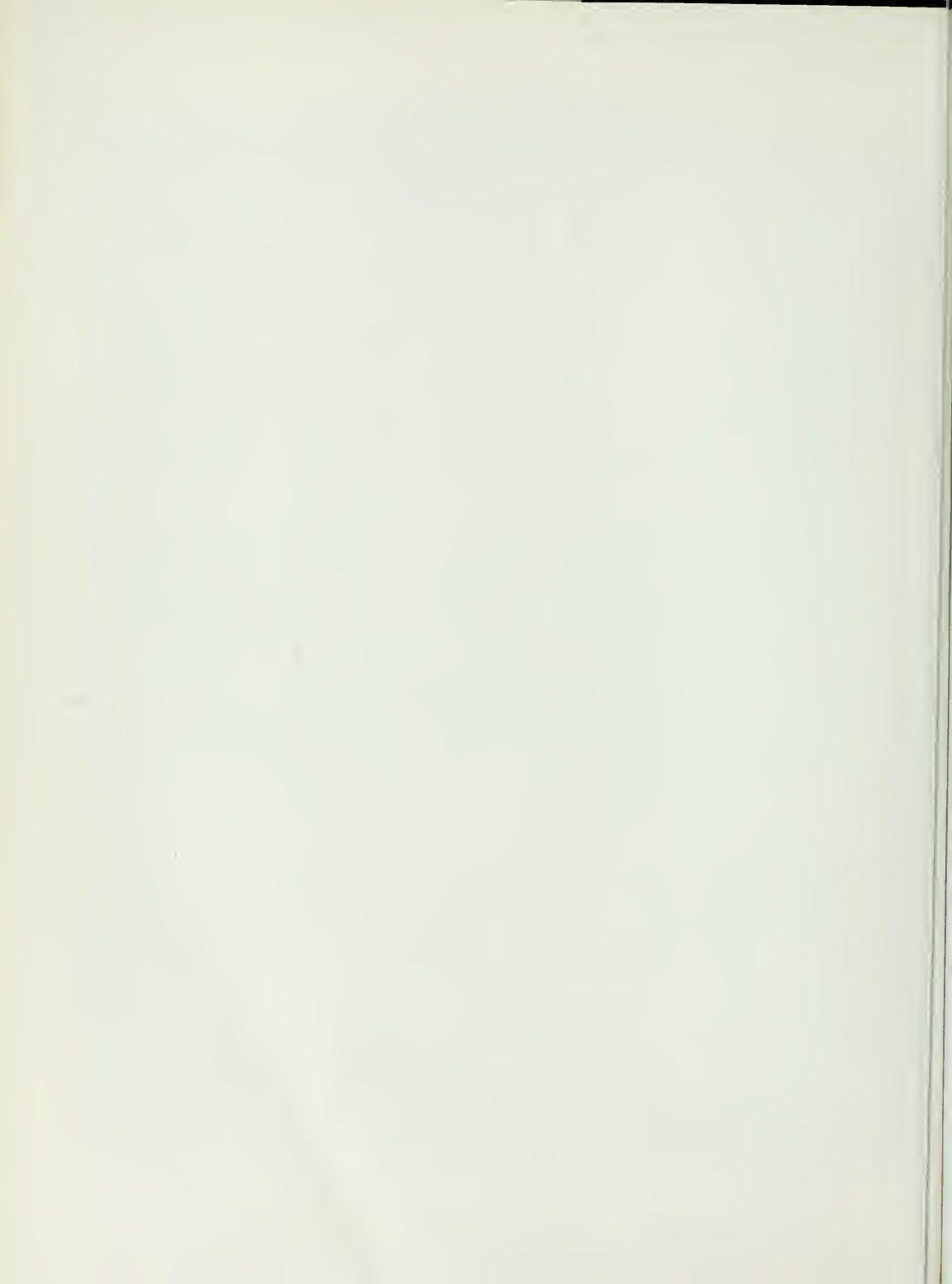
Water User	Mile Post from Canal Head From To	Monthly Deliveries in Acre-Feet												Total
		Oct.	Nov	Dec	Jan.	Feb.	Mar	Apr.	May	June	July	Aug	Sept.	
Delta-Mendota Canal														
State of California (South Bay Aqueduct)	3.54	1571	1320	0	620	86	1148	0	645	1539	1407	2205	2392	12933
Plain View Water District	8.50 20.00	425	141	1	5	54	1089	118	2861	2809	3256	3176	1930	15865
West Side Irrigation District	14.78	0	0	0	0	0	98	0	336	204	827	327	212	2004
Banta-Carboma Irrigation District	20.42	0	0	0	0	0	0	0	1530	1331	1739	1747	654	7001
Hospital Water District	18.05 30.96	359	194	3	1	3	2009	631	2932	4375	4131	3598	2689	20925
West Stanislaus Irrigation District	31.31	0	0	0	0	0	0	0	406	715	5778	6977	1124	15000
Kern Canon Water District	31.31 35.18	136	129	13	4	0	401	151	1039	1198	1276	1592	636	6575
Del Puerto Water District	35.73 42.08	217	527	47	0	1	716	94	1209	2405	1996	2138	1238	10588
Patterson Water District	42.51	174	25	8	0	0	0	268	806	895	891	1285	1079	5431
Salado Water District	42.10 46.83	116	41	0	0	0	215	0	1156	1408	2034	1131	514	6615
Sunflower Water District	44.23 52.02	140	30	0	13	0	541	188	1073	2005	2458	1903	549	8900
Orestimba Water District	46.83 51.41	40	2	8	1	1	330	30	1181	1943	3176	1631	429	8772
Foothill Water District	51.65 57.46	208	1	1	1	0	632	0	915	1393	2083	1563	1387	8184
Davis Water District	53.60 56.82	128	31	0	0	0	73	33	304	412	599	578	415	2573
Luhr and Wendt		0	0	0	0	0	5	4	6	6	9	13	10	53
Mustang Water District	56.80 62.67	131	46	6	0	0	322	36	644	972	1626	1063	625	5471
Quinto Water District	63.96 67.55	129	60	0	0	0	160	0	278	511	844	811	714	3507
Romero Water District	66.70 68.03	390	100	50	0	0	145	0	181	291	489	545	128	2319
San Luis Water District	69.21 90.53	2246	1606	675	928	4414	4265	5026	6130	10574	12698	9507	3350	61419
Grassland Water District	70.00	9916	4341	54	0	0	0	0	796	899	762	402	1114	18284
Grassland Water District (1)	Mendota Pool	18925	5648	0	0	0	0	0	0	0	0	0	2759	27332
Morrison-Knudsen		0	0	0	0	0	0	0	0	0	0	0	1	1
State Fish and Game	70.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Sam Hamburg Farms	90.53	1	2	1	3	1	2	1	2	3	4	3	2	25
Panoche Water District	93.25 96.70	2153	2983	1470	1175	7264	7643	2710	4676	10665	12664	10993	3329	67731
Eagle Field Water District	93.27 94.57	33	192	43	132	517	98	160	1242	1229	1451	1270	564	6931
Oro Loma Water District	95.50 96.62	0	0	0	0	0	0	666	1156	933	1130	961	97	4943
Westside Golf Association	95.95	14	12	2	5	3	9	8	13	17	22	20	15	140
McNamara-Mannix		0	0	0	0	0	0	33	49	51	53	33	34	253
Mercy Springs Water District	97.70 99.82	0	0	0	0	0	216	137	1213	1187	1119	733	220	4825
Mercy Springs Water District (1)	Pool	0	0	0	0	0	0	0	0	0	0	0	0	0
Widren Water District	102.03	0	0	0	0	0	35	113	506	439	438	478	124	2133
Broadview Water District	102.95	284	1209	849	428	1911	1575	585	1344	2262	3271	2479	1058	17255
Total		37736	18640	3231	3316	14255	21733	10992	34629	52671	68231	59162	29392	353988
Net Deliveries DMC to Mendota Pool		45629	26244	5044	13734	23909	83185	56247	124074	143078	174944	163008	82665	941761
Millerton Lake														
Fresno County Water District #18			2	2	2	2	2	2	8	14	18	16	11	84
Ralston Association			1	1	1	1	1	1	1	1	2	2	1	13
Total		5	3	3	3	3	3	3	9	15	20	18	12	97
Madera Canal														
Madera Irrigation District	6.10 32.4	0	0	0	0	1006	5697	7750	17274	31861	38954	36861	20261	159664
Adobe Ranch	20.6	0	54	0	0	0	0	0	0	0	0	0	0	54
Chowchilla Water District	35.9	0	0	0	0	0	77	4104	12341	22882	26458	26809	13272	105943
Total		0	54	0	0	1006	5774	11854	29615	54743	65412	63670	33533	265661

TABLE B-95
DELIVERIES FROM CENTRAL VALLEY PROJECT CANALS (Continued)*
October 1962 through September 1963

Water User	Mile Post from Canal Head		Monthly Deliveries in Acre-Feet													Total
	From	To	Oct.	Nov	Dec.	Jan	Feb.	Mar	Apr	May	June	July	Aug	Sept		
Friant-Kern Canal																
Garfield Water District	7.53		108	75	20		71	92	18	296	668	771	462	274	2655	
International Water District	14.9		18	0	0	0	0	0	0	52	147	180	187	116	790	
Round Mountain Water District	20.85	21.33	21	0	0	0	0	0	0	0	0	29	34	38	122	
Round Mountain Ranch	20.22		13	4	0	0	0	0	0	7	16	16	8	10	74	
Consolidated Irrigation District	28.50		0	0	0	0	0	0	10820	16096	9900	10000	17278	0	64094	
Last Chance Water Ditch Company	28.50		0	0	0	0	0	0	635	1865	1000	0	0	0	3500	
Laguna Irrigation District	28.50		0	0	0	0	0	0	1460	3540	2001	0	0	0	7001	
Corcoran Irrigation District	28.50		0	0	0	0	0	0	8440	3160	2001	0	0	5383	18984	
Stratford Irrigation District	28.50		0	0	0	0	0	0	200	300	0	0	0	0	500	
Tulare Lake Basin Water Storage District	28.50	95.64	0	0	0	0	0	0	4358	16284	4001	8000	4479	26523	63645	
Alta Irrigation District	28.50		0	0	0	0	0	0	2101	901	601	0	0	0	3603	
Fresno Irrigation District	28.50		0	0	0	0	3836	0	17994	1226	2711	1861	18821	6179	52628	
Riverdale Irrigation District	28.50		0	0	0	0	0	0	1460	3540	2501	0	0	0	7501	
Kings River Water Association	28.50		0	0	0	0	0	0	0	0	0	0	0	0	0	
Westside Irrigation District	28.50		0	0	0	0	0	0	1200	1800	0	0	0	0	3000	
Kings County Water District	28.50	71.29	0	0	0	0	0	0	12966	8536	3132	5873	9656	345	40508	
Drange Cove Irrigation District	35.87	53.31	1373	885	0	0	0	52	20	1950	5361	6881	7198	3669	27389	
City of Orange Cove	43.44		23	3	0	0	0	0	0	30	36	38	35	26	191	
Stone Corral Irrigation District	56.90	64.40	260	151	0	0	0	65	46	434	1408	1910	1757	843	6874	
Ivanhoe Irrigation District	65.04	68.13	1010	674	0	0	0	12	157	1375	1644	2634	3402	2491	13399	
Tulare Irrigation District	68.14	71.29	3051	2001	0	0	18631	0	23241	24151	39454	39228	19250	26793	195800	
Lakeside Irrigation Water District	69.42		0	0	0	0	0	0	1628	4873	8420	280	5000	0	20201	
Kaweah-Delta Water Conservation District	69.08	71.29	0	0	0	0	0	0	11558	18403	10193	0	7468	2283	49905	
Exeter Irrigation District	72.52	79.24	1523	1186	0	0	409	353	422	3136	4407	4860	4324	2321	22941	
Lindsay-Strathmore Irrigation District	85.56		2588	2164	0	0	50	353	417	2674	3781	4441	4471	347	24418	
Lindmore Irrigation District	88.17	91.12	2951	1730	0	0	1549	1954	369	4655	8589	10344	9812	5542	47195	
Porterville Irrigation District	93.93	98.62	500	545	0	0	922	1825	807	2275	3070	3584	3995	1882	19405	
Lower Tule Irrigation District	95.67	98.62	19295	8398	0	0	8313	17635	27166	49088	49342	38625	49558	40394	378312	
Tea Pot Dome	99.35		407	220	0	0	26	22	2	442	609	680	672	510	3390	
Saucelito Irrigation District	93.62	107.37	1956	579	0	0	1817	4364	2075	4395	8247	9231	9459	5123	47296	
Cloer Commercial Service District	101.60		0	0	0	0	0	0	16	0	0	0	0	0	16	
Terra Bella Irrigation District	102.65	994	524	0	0	0	0	28	0	1158	1603	2210	2297	1595	10409	
Fixley Irrigation District	102.69	3039	0	0	0	0	4320	0	2692	4261	6583	10277	10352	6401	47931	
Delano-Earlhart Irrigation District	109.48	118.45	7765	5399	224	0	6748	18813	11054	16027	25240	33329	28991	1145	16404	
Rag Gulch Water District	117.96		430	264	141	0	910	0	891	1327	1458	1343	1096	488	9148	
Southern San Joaquin Municipal Utility District	117.44	127.97	3554	3082	555	0	2698	20567	8404	9269	13222	29943	25809	9428	126931	
Shafter-Wasco Irrigation District	134.42	137.17	1640	1190	532	0	930	7147	2150	2257	5742	10719	10149	4062	46509	
Pacific Gas & Electric Company	150.83		0	0	0	0	0	0	0	0	0	0	0	0	0	
Rosedale Rio Bravo Water Storage District	151.0		0	0	0	0	0	0	4019	5889	6303	0	0	0	15903	
Buena Vista Water Storage District	151.80		0	0	0	0	0	0	2358	3830	9199	1835	0	2501	19683	
TOTAL			52519	29074	1472	0	91230	73282	161144	219472	242287	238892	256811	170711	1496700	

* Data furnished by the U. S. Bureau of Reclamation.

- (1) Delta-Mendota Canal water delivered via Delta-Mendota Pool.
- (2) Includes water transported from Wutchunna Ditch.



APPENDIX C

GROUND WATER MEASUREMENTS



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INTRODUCTION

This appendix presents ground water measurement data for the period July 1, 1962 through June 30, 1963.

The area for which ground water level measurements of selected wells are shown on Table C-1 is designated as Area 4 on page iii. Area 4 is that portion of the Water Pollution Control Board Region 5, which includes the Stanislaus River drainage area and the area south, to the Tehachapi Mountains.

The department cooperates with U. S. Geological Survey and the U. S. Bureau of Reclamation and many local agencies for the systematic observation of ground water levels. Wells for which water level measurements are collected in the San Joaquin Valley Hydrologic area number approximately 7,500 of which nearly 600 are presented here. These 600 wells were selected as representative wells of all the wells measured in the area, and are designated as selected wells. These wells were selected on the basis of a number of factors such as areal distribution; length of water level record; frequency of measurements; conformity with respect to water level fluctuations in the ground water basin or area, in a confined aquifer, or in a zone of shallow depth; and availability of a log, mineral analyses, and production records.

The depth to water in most wells is usually a direct measurement made with a tape; however, in some wells, especially deep ones, measurements are made with an air line and gage or an electric sounder.

Forty-six ground water basins or areas in the San Joaquin Valley are shown on Plates C-1 and C-2.

The districts or areas with a ground water level change of five feet or more in the unconfined and semiconfined aquifers are also shown on Plate C-1. The districts or areas with a ground water level change of five feet or more in the confined aquifers are shown on Plate C-2.

A map showing the location of the selected wells as listed in Table C-1 is presented on Plate C-3.

Outlined on Plate C-4 is the Poso Soil Conservation District Cooperative Ground Water Program area.

Presented on Plate C-5 is that portion of Kern County covered in the Kern County cooperative ground water program for that area.

Definitions

Free ground water - Water in the interconnected interstices in the zone of saturation down to the impervious barrier, moving under the control of the water-table slope.

Confined ground water - A body of ground water overlain by material sufficiently impervious to sever free hydraulic connections with overlying ground water except at the intake. Confined water moves in conduits under pressure due to difference in head between intake and discharge areas of the confined water body.

Pressure surface - Or piezometric surface is the level to which the water level will rise above the bottom of a confining bed of impervious material when penetrated.

Perched ground water - Ground water occurring in a saturated zone separated from the main body of ground water by unsaturated material.

Water table - On pervious granular material the water table is the upper surface of the body of free water which completely fills all openings in the material sufficiently pervious to permit percolation. On fractured impervious rocks and in solution openings, it is the surface at the contact between the water body in the openings and the overlying ground air.

A map of 19 historic ground water areas and profiles along a section showing water levels in 1921, 1951, 1962, and 1963 are presented on Plate C-6.

Unit hydrographs depicting the fluctuation of average water levels in the 19 historic ground water areas in the San Joaquin Valley are presented on Plate C-7.

Water level fluctuations are depicted graphically on hydrographs for 35 selected wells distributed among significant basins and areas in the San Joaquin Valley. The hydrographs are presented on Plate C-8 by region, basin, or area, and well number.

Presented on Plate C-9 is a map showing lines of equal elevation of water in wells, San Joaquin Valley, Spring 1963.

RECORDS OF GROUND WATER LEVELS AT WELLS IN THE SAN JOAQUIN VALLEY

Explanation of Headings and Symbols Used in Columns in Table C-1

State Well Number--The well numbering system used in this report is based on the township, range, and section subdivision of the Public Land Survey. It conforms to the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report the number, which is assigned to a well in accordance with this system, is referred to as the "State" well number.

Under the system, each section is divided into 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. For example, a well which has the number 16S/15E-17K1 M would be in Township 16 South, Range 15 East, Section 17, M.D.B. & M., and would be further located as the first well assigned a State Well Number in Tract K. In this report, well numbers are referenced to the Mount Diablo Base and Meridian (m) or the San Bernardino Base and Meridian (S).

Ground surface elevation--The numbers in this column give the elevation in feet above mean sea level (U.S.G.S. datum).

Date--The date shown in this column is the date upon which the depth measurement given in the next column was made.

Ground surface to water surface in feet--This is the measured depth in feet from the ground surface to the water surface in the well. Certain of the depth measurements in the column may be followed with an asterisk superscript to indicate a questionable measurement. Depth to ground water measurements may be questionable for such reasons as (a) well being pumped while undergoing measurement, (b) nearby pump operating, (c) casing leaking or wet, (d) well pumped recently, (e) air gage measurement, (f) recharge operation at well or nearby. The specific reason for any asterisk on any given measurement may be obtained through the San Joaquin Valley Branch Office of the Department of Water Resources.

Other code symbols used in this column are as follows:

- - No measurement
- ‡ - Measurement discontinued
- @ - Well has been destroyed

The words FLOW and DRY are shown in this column to indicate a flowing or dry well, respectively.

The word DISCONTINUED indicates records from this well will no longer be published.

Water surface elevation--This is the elevation in feet above mean sea level (U.S.G.S. datum) of the water surface in the well. It was derived by machine computation by subtraction of the depth measurement from the reference point elevation.

Agency supplying data--The numbers in this column are the code numbers for the agencies supplying water level data. The agency code consists of a five-digit number, the first of which is a region number. Thus, 54200 refers to agency 4200 in Region 5. Because of the limitations of punch-card space, the agency code has been shown as a four-digit number without the region number.

The first digit of the four-digit agency code designates the type of well numbering system used by the agency as follows:

<u>Code</u>	<u>Well Numbering System</u>
4	Local numbers
5	State or U. S. G. S.
6	U. S. B. R.
7	South San Joaquin Irrigation District
8	Kern County Land Company

The last three digits of the agency code are numbers that designate, within specified serial limits, the type of agency from which the data were obtained, as follows:

<u>Code</u>	<u>Type of Agency</u>
000-049	Federal
050-099	State
100-199	County
200-399	Municipal
400-699	District--Water, Irrigation, Conservation, etc.
700-999	Private

In the Central Valley Region, the agency code for districts is further broken down to the geographic areas, as follows:

<u>Code</u>	<u>Area in Central Valley Region</u>
500-599	American River to San Joaquin River
600-699	San Joaquin River to Tehachapi Mountains

In this list of water levels, the agency furnishing the measurement is listed. The agencies and code numbers assigned to them are as follows:

<u>Agency Code</u>	<u>Agency</u>
4200	City of Fresno
4520	Oakdale Irrigation District
4521	Modesto Irrigation District
4524	Turlock Irrigation District
4525	Merced Irrigation District
4636	Consolidated Irrigation District
4637	Alta Irrigation District
4640	Buena Vista Water Storage District

<u>Agency Code</u>	<u>Agency</u>
5000	U. S. Geological Survey
5050	Department of Water Resources
5120	Kern County Surveyor
5529	Poso Soil Conservation District
5631	Fresno Irrigation District
6001*	U. S. Bureau of Reclamation
7518	South San Joaquin Irrigation District
8700	Kern County Land Company

*A large amount of data listed under this agency code has been gathered by irrigation and water districts and compiled by the Bureau of Reclamation for transmittal to the Department of Water Resources.

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD. SUR. TO WATER SUR. IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SAN JOAQUIN VALLEY					
SO SAN JOAQUIN IRRIGATION DIST					
5-22+00			5-22+00		
15/07E-15J01 M	42.0	1-26-63	9.3	32.7	7518
25/07E-12R01 M	55.0	1-03-62	14.5	40.5	5050
		2-02-62	14.7	40.3	
		3-05-62	14.5	40.5	
		4-03-62	14.1	40.9	
		5-03-62	14.7	40.3	
		7-06-62	14.2	40.8	
		8-02-62	14.3	40.7	
		8-09-62	14.4	40.6	
		10-02-62	14.3	40.7	
		11-05-62	14.4	40.6	
		12-05-62	14.2	40.8	
		1-07-63	13.7	41.3	
		2-14-63	13.0	42.0	
		3-01-63	13.0	42.0	
		4-03-63	14.1	40.9	
		5-03-63	12.7	42.3	
		6-03-63	13.1	41.9	
25/07E-12R02 M	55.0	1-03-62	12.2	42.8	5050
		2-02-62	12.3	42.7	
		3-05-62	11.5	43.5	
		4-03-62	11.0	44.0	
		5-03-62	10.3	44.7	
		6-06-62	10.4	44.6	
		7-05-62	10.5	44.5	
		8-06-62	10.4	44.6	
		9-05-62	10.9	44.1	
		10-04-62	11.2	43.8	
		11-05-62	11.5	43.5	
		12-05-62	11.8	43.2	
		1-07-63	11.9	43.1	
		2-14-63	10.8	44.2	
		3-01-63	11.8	43.2	
		4-03-63	11.4	43.6	
		5-03-63	10.7	44.3	
		6-03-63	10.8	44.2	
25/09E-08H01 M	112.0	7-01-62	#		7518
		7-02-62	#		
OAKDALE IRRIGATION DISTRICT					
5-22+06			5-22+06		
15/09E-16J01 M	119.0	10-31-61	59.8	59.2	4520
		3-01-62	58.0	61.0	
		12-05-62	58.0	61.0	
		1-02-63	56.2	62.8	
		2-01-63	55.8	63.2	
		3-01-63	55.9	63.1	
		4-01-63	55.8	63.2	
		5-01-63	55.6	63.4	
		6-01-63	57.8	61.2	
15/09E-36A01 M	145.0	12-13-62	50.9	94.1	4520
		1-03-63	50.8	94.2	
		1-17-63	50.9	94.1	
		2-03-63	51.0	94.0	
		2-15-63	51.2	93.8	
		3-01-63	51.2	93.8	
15/10E-19L01 M	146.5	10-31-61	59.3	87.2	4520
		3-02-62	57.1	89.4	
		12-05-62	57.1	89.4	
		1-02-63	52.6	93.9	
		2-01-63	52.6	93.9	
		3-01-63	52.8	93.7	
		4-01-63	52.8	93.7	
		5-01-63	52.8	93.7	
		6-01-63	52.0	94.5	
15/10E-28J01 M	193.0	12-05-62	87.5	105.5	4520
		1-03-63	86.4	106.6	
		1-17-63	86.2	106.8	
		2-03-63	86.0	107.0	
		2-15-63	86.1	106.9	
		3-01-63	85.8	107.2	
25/09E-26F01 M	132.0	12-05-62	52.5	79.5	4520
		1-03-63	52.2	79.8	
		1-17-63	52.7	79.3	
		2-03-63	52.8	79.2	
		2-15-63	51.7	80.3	
		3-01-63	52.0	80.0	
		3-28-63	52.8	79.2	
		4-29-63	51.8	80.2	
		6-01-63	#		
25/10E-04H01 M	185.5	10-31-61	85.3	100.2	4520

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
OAKDALE IRRIGATION DISTRICT					
5-22-06					
25/10E-04H01 M CONT.	185.5	11-16-61	83.9	101.6	4520
		12-04-61	83.0	102.5	
		12-18-61	82.2	103.3	
		1-02-62	81.6	103.9	
		1-16-62	81.4	104.1	
		2-01-62	81.2	104.3	
		2-15-62	81.0	104.5	
		3-02-62	80.7	104.8	
		12-05-62	77.7	107.8	
		1-03-63	77.2	108.3	
		2-01-63	77.3	108.2	
		3-01-63	77.3	108.2	
		4-01-63	77.3	108.2	
		5-01-63	77.2	108.3	
		6-01-63	78.0	107.5	
		12-12-62	61.6	103.4	
		1-03-63	61.2	103.8	
		1-17-63	61.3	103.7	
		2-03-63	61.2	103.8	
		2-15-63	61.1	103.9	
		3-01-63	61.2	103.8	
25/10E-33J01 M	165.0	10-31-61	102.9	115.1	4520
		3-02-62	96.7	121.3	
		12-05-62	94.5	123.5	
		1-03-63	94.5	123.5	
		2-01-63	93.1	124.9	
		3-01-63	93.3	124.7	
		4-01-63	93.0	125.0	
		5-01-63	92.7	125.3	
		6-01-63	94.5	123.5	
25/11E-29H01 M	218.0	12-01-62	79.6	112.4	4520
		3-01-63	78.8	113.2	
25/12E-31K01 M	190.0	12-01-62	45.5	144.5	4520
		3-01-63	45.0	145.0	
35/10E-15A01 M	152.0	12-05-62	52.7	99.3	4520
		1-03-63	52.3	99.7	
		1-17-63	51.7	100.3	
		2-03-63	51.5	100.5	
		2-15-63	51.1	100.9	
		3-01-63	51.0	101.0	

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
OAKDALE IRRIGATION DISTRICT					
5-22-06					
35/10E-15A01 M CONT.	152.0	3-28-63	50.9	101.1	4520
		4-29-63	50.4	101.6	
		6-01-63	52.7	99.3	
35/11E-18D01 M	162.0	12-12-62	57.0	105.0	4520
		1-03-63	56.4	105.6	
		1-17-63	56.4	105.6	
		2-03-63	56.2	105.8	
		2-15-63	56.0	106.0	
		3-01-63	56.0	106.0	
MODESTO IRRIGATION DISTRICT					
5-22-07					
25/08E-25P01 M	97.2	11-01-62	36.2	61.0	4521
		3-01-63	38.2	59.0	
25/09E-31G01 M	100.3	11-01-62	33.2	67.1	4521
		3-01-63	31.9	68.4	
35/08E-22C01 M	64.0	7-05-62	17.8	46.2	5050
		8-06-62	17.6	46.4	
		9-05-62	18.3	45.7	
		10-04-62	17.9	46.1	
		11-05-62	17.8	46.2	
		12-05-62	18.2	45.8	
		1-07-63	15.5	48.5	
		2-13-63	14.7	49.3	
		3-01-63	14.6	49.4	
		4-03-63	15.3	48.7	
		5-06-63	14.5	49.5	
		6-05-63	14.2	49.8	
35/08E-22C02 M	64.0	7-05-62	14.0	50.0	5050
		8-06-62	13.5	50.5	
		9-05-62	14.9	49.1	
		10-04-62	15.7	48.3	
		11-05-62	15.9	48.1	
		12-05-62	15.8	48.2	
		1-07-63	14.4	48.6	
		2-13-63	13.9	50.1	
		3-01-63	14.0	50.0	
		4-03-63	13.3	50.7	
		5-06-63	13.2	50.8	
		6-05-63	13.0	51.0	
35/08E-24C01 M	74.0	11-01-62	23.2	50.8	4521

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MODESTO IRRIGATION DISTRICT					
5-22-07					
3S/08E-24C01 M	74.0	3-01-63	21.6	52.4	4521
3S/09E-05N01 M	92.5	11-01-62	24.5	68.0	4521
		3-01-63	24.9	67.6	
3S/09E-21A02 M	95.0	11-01-62	33.8	61.2	4521
		3-01-63	33.5	61.5	
3S/09E-30P01 M	82.5	11-01-62	39.6	42.9	4521
		3-01-63	38.0	44.5	
3S/10E-06G01 M	133.1	11-01-62	36.3	96.8	4521
		3-01-63	36.2	96.9	
3S/10E-29K01 M	119.2	11-01-62	45.5	73.7	4521
		3-01-63	46.5	72.7	
3S/10E-32G01 M	123.0	11-01-62	57.6	65.4	4521
		3-01-63	56.6	66.4	
4S/08E-03E01 M	63.0	11-01-62	16.4	46.6	4521
		3-01-63	17.0	46.0	
TURLOCK IRRIGATION DISTRICT					
5-22-08					
4S/08E-27D01 M	55.0	3-01-63	10.4	44.6	4524
4S/09E-21A01 M	82.0	3-01-63	15.0	67.0	4524
4S/10E-21R01 M	109.0	3-01-63	12.5	96.5	4524
4S/10E-21R02 M	109.0	12-00-62	14.7	94.3	4524
4S/11E-29N01 M	131.0	3-01-63	12.5	118.5	4524
4S/11E-32P01 M	130.0	12-00-62	23.6	106.4	4524
5S/08E-01N01 M	53.0	3-01-63	5.7	47.3	4524
5S/08E-02R01 M	50.0	12-00-62	8.5	41.5	4524
5S/09E-03O02 M	70.0	7-05-62	6.9	63.1	5050
		8-06-62	7.1	62.9	
		9-06-62	4.9	65.1	
		10-04-62	5.0	65.0	
TURLOCK IRRIGATION DISTRICT					
5-22-08					
5S/09E-03D02 M	70.0	11-01-62	6.2	63.8	5050
CONT.		12-05-62	8.7	61.3	
		1-07-63	7.1	62.9	
		2-14-63	5.8	64.2	
		3-06-63	6.5	63.5	
		4-02-63	6.6	63.4	
		5-14-63	5.8	64.2	
		6-04-63	5.5	64.5	
5S/09E-14R01 M	75.0	7-03-62	5.7	69.3	4524
		8-02-62	5.8	69.2	
		9-05-62	6.4	68.6	
		10-02-62	7.0	68.0	
		11-01-62	7.6	67.4	
		12-04-62	7.7	67.3	
		1-03-63	7.6	67.4	
		2-01-63	7.4	67.6	
		3-05-63	5.7	69.3	
		4-02-63	6.0	69.0	
		5-02-63	6.5	68.5	
		6-04-63	6.8	68.2	
5S/09E-22N01 M	63.0	12-00-62	8.6	54.4	4524
5S/09E-24N01 M	75.0	7-03-62	5.9	69.1	4524
		8-02-62	4.8	70.2	
		9-05-62	6.6	68.4	
		10-02-62	6.4	68.6	
		11-01-62	6.8	68.2	
		12-04-62	7.1	67.9	
		1-03-63	7.8	67.2	
		2-01-63	6.6	68.4	
		3-05-63	5.3	69.7	
		4-02-63	6.5	68.5	
		5-02-63	6.9	68.1	
		6-04-63	6.9	70.1	
5S/10E-21O01 M	90.0	12-00-62	12.0	78.0	4524
5S/10E-21R01 M	92.0	3-00-63	7.5	84.5	4524
5S/11E-21N01 M	125.0	3-00-63	6.3	118.7	4524
5S/11E-29F01 M	120.0	12-00-62	11.7	108.3	4524
5S/12E-31N01 M	150.0	12-00-62	45.5	104.5	4524

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER F.U.M. IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
TURLOCK IRRIGATION DISTRICT					
5-22.08					
65/09E-15R01 M	60.0	3-01-63	5.5	54.5	4524
65/10E-21A01 M	87.0	3-01-63	4.2	82.8	4524
65/10E-21N01 M	84.0	12-00-62	6.9	77.1	4524
65/11E-08R01 M	115.0	3-00-63	13.2	101.8	4524
65/11E-09N01 M	118.0	12-00-62	8.6	109.4	4524
MERCED IRRIGATION DISTRICT					
5-22.09					
65/11E-34R01 M	111.3	7-03-62	6.8	104.5	4525
		7-31-62	7.5	103.8	
		9-06-62	7.7	103.6	
		10-03-62	8.1	103.2	
		10-30-62	6.0	105.3	
		12-04-62	7.4	103.9	
		1-08-63	7.2	104.1	
		2-05-63	7.1	104.2	
		3-05-63	6.8	104.5	
		4-02-63	7.8	103.5	
		5-02-63	5.8	105.5	
		6-03-63	#	#	
		6-04-63	#	#	
65/12E-21N01 M	143.8	7-02-62	15.9	127.9	4525
		7-30-62	14.9	128.9	
		9-06-62	14.4	129.4	
		10-02-62	15.7	128.1	
		10-30-62	16.2	127.6	
		12-04-62	15.4	128.4	
		1-07-63	15.9	127.9	
		2-05-63	14.9	128.9	
		3-05-63	15.3	128.5	
		4-01-63	15.0	128.8	
		5-01-63	15.0	128.8	
		5-29-63	17.9	125.9	
		6-27-63	15.9	127.9	
65/13E-19N01 M	180.7	7-30-62	14.8	165.9	4525
		9-05-62	14.8	165.9	
		10-02-62	16.0	164.7	
		10-29-62	15.5	165.2	
		12-04-62	16.1	164.6	
MERCED IRRIGATION DISTRICT					
5-22.09					
65/13E-19N01 M	180.7	1-08-63	16.7	164.0	4525
		2-04-63	11.0	169.7	
		3-04-63	14.5	166.4	
		4-01-63	15.1	165.6	
		5-01-63	14.7	166.0	
		5-29-63	13.1	167.6	
		6-27-63	14.6	166.1	
65/14E-32N01 M	178.1	7-03-62	14.7	163.4	4525
		8-03-62	15.0	163.1	
		9-06-62	14.7	163.4	
		10-04-62	14.4	163.7	
		11-05-62	15.5	162.6	
		12-10-62	15.2	162.9	
		1-10-63	14.9	163.2	
		2-05-63	11.6	166.5	
		3-05-63	14.6	163.5	
		4-02-63	14.0	164.1	
		5-02-63	12.5	165.6	
		5-29-63	13.3	164.8	
		6-30-63	11.9	166.2	
75/10E-01N01 M	90.7	3-05-63	9.8	80.9	4525
75/11E-01N01 M	118.0	1-02-62	14.6	103.4	5050
		2-02-62	14.5	103.7	
		3-05-62	12.8	105.2	
		4-05-62	13.5	104.7	
		5-02-62	13.8	104.2	
		6-07-62	11.3	106.7	
		7-02-62	11.5	106.5	
		8-02-62	12.8	105.2	
		9-06-62	11.4	106.6	
		10-03-62	11.0	107.0	
		11-01-62	10.9	107.1	
		12-05-62	11.2	106.8	
		1-07-63	11.3	106.7	
		2-10-63	11.1	106.9	
		3-05-63	10.2	107.8	
		4-02-63	10.3	107.7	
		5-03-63	9.8	108.2	
		6-04-63	9.7	108.3	
75/11E-13N01 M	106.6	7-03-62	8.6	98.0	4525
		7-30-62	8.0	98.6	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MERCED IRRIGATION DISTRICT					
5-22-09					
7S/11E-13N01 M CONT.	106.6	9-06-62 10-03-62 10-30-62 12-04-62 1-07-63 2-05-63 3-05-63 4-02-63 5-02-63 6-03-63 6-30-63	9.2 8.1 7.0 7.2 7.3 6.3 5.2 5.2 8.2 8.6 8.7	97.4 98.5 99.6 99.3 99.4 100.3 101.4 101.4 98.4 98.0 97.9	4525
7S/12E-12R01 M	147.3	7-30-62 9-05-62 10-02-62 10-29-62 12-04-62 1-07-63 2-04-63 3-04-63 4-01-63 5-01-63 5-29-63 6-27-63	13.2 15.3 16.6 15.4 15.6 15.1 15.3 14.4 14.5 13.6 12.8 11.2	134.1 131.8 130.7 131.9 131.2 132.2 132.0 132.9 132.6 134.5 134.3 136.1	4525
7S/13E-16N01 M	152.1	7-30-62 9-05-62 10-02-62 10-29-62 12-03-62 1-08-63 2-04-63 3-04-63 4-01-63 5-01-63 5-29-63 6-27-63	12.0 11.7 16.9 11.4 11.8 12.7 12.8 11.3 11.5 11.2 12.0 14.2	140.1 140.4 135.2 140.7 140.3 139.4 139.3 140.8 140.6 140.9 140.1 137.9	4525
7S/14E-16R01 M	187.5	7-03-62 8-03-62 9-06-62 10-04-62 11-05-62 12-10-62 1-10-63	4.4 4.9 5.8 6.4 10.1 11.6 12.7	183.1 182.6 181.7 181.1 177.4 175.9 174.8	4525
MERCED IRRIGATION DISTRICT					
5-22-09					
7S/14E-16R01 M CONT.	187.5	2-05-63 3-05-63 4-01-63 5-02-63 5-29-63 6-30-63	13.1 13.2 11.3 10.5 7.8 5.1	174.4 174.3 176.2 177.0 179.7 182.4	4525
7S/15E-36N01 M	234.2	7-02-62 7-30-62 9-06-62 10-02-62 10-30-62 11-04-62 12-04-62 1-07-63 2-05-63 3-05-63 4-01-63 5-01-63 5-29-63 6-27-63	DRY DRY DRY DRY DRY DRY DRY DRY DRY DRY DRY DRY DRY DRY		4525
8S/12E-01D01 M	120.2	8-01-62 9-05-62 10-02-62 11-01-62 12-04-62 1-09-63 2-04-63 3-04-63 4-01-63 5-01-63 5-29-63 6-27-63	6.0 7.0 6.4 6.6 8.3 8.5 7.9 7.4 6.7 6.8 6.0 5.6	114.2 113.2 113.8 113.6 111.9 111.7 112.3 112.8 113.5 113.4 114.2 114.6	4525
8S/13E-09R01 M	135.0	8-02-62 9-05-62 10-01-62 11-01-62 12-05-62 1-09-63 2-04-63 3-04-63 4-01-63 5-01-63	1.4 1.2 3.3 5.1 6.2 6.2 5.8 4.7 5.2 5.4	133.6 133.8 131.7 129.9 128.8 128.8 130.2 130.3 129.8 129.6	4525

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MERCED IRRIGATION DISTRICT					
5-22.09					
85/13E-09R01 M CONT.	135.0	5-27-63 6-27-63	2.8 3.0	132.2 132.0	4525
85/14E-01A01 M	196.8	7-02-62 8-03-62 9-06-62 10-02-62 11-01-62 12-05-62 1-09-63 2-04-63 3-08-63 4-01-63 5-01-63 5-27-63 6-27-63	12.6 11.6 10.7 10.5 10.7 11.5 12.1 12.2 11.7 11.1 10.7 10.5	184.2 185.2 186.1 186.3 186.1 185.3 184.7 184.6 185.1 184.8 185.7 186.1 186.3	4525
EL NIDO IRRIGATION DISTRICT					
5-22.10					
95/13E-14R01 M	134.0	2-20-63	78.3	55.7	4525
95/14E-20B01 M	151.0	2-20-63	67.3	83.7	4525
DELTA-MENDOTA AREA					
5-22.11					
25/04E-16H01 M	78.0	10-08-62 3-01-63	7.0 9.5	71.0 68.5	6001
25/04E-25J01 M	80.4	10-09-62 3-04-63	21.0 27.1	59.4 53.3	6001
25/04E-28A01 M	187.0	10-09-62 3-01-63	125.2 130.0	61.8 57.0	6001
25/05E-32A01 M	76.0	10-08-62 3-04-63	21.8 24.4	54.2 51.6	6001
35/05E-08R01 M	195.7	10-11-62 3-06-63	128.9 131.2	66.8 64.5	6001
35/05E-08R02 M	195.7	10-11-62 3-06-63	130.7 127.2	65.0 68.5	6001
35/05E-25O01 M	207.0	10-17-62 3-08-63	120.5 121.6	86.5 85.4	6001
DELTA-MENDOTA AREA					
5-22.11					
35/05E-26K01 M	212.1	10-16-62 3-08-63	127.7 126.8	84.4 85.3	6001
35/06E-16O01 M	80.0	10-15-62 3-05-63	88.0 53.3	26.7 -	6001
35/06E-18N01 M	99.3	10-16-62 3-05-63	13.3 15.9	86.0 83.4	6001
35/06E-25D01 M	63.5	10-15-62 3-08-63	31.6 a	31.9	6001
45/06E-04H01 M	163.3	10-11-62 2-28-63	98.4 97.5	64.9 65.8	6001
45/06E-09R01 M	166.3	10-11-62 2-28-63	143.3* 116.1	23.0 50.2	6001
45/07E-27M01 M	68.0	10-18-62 3-07-63	24.1 23.8	43.9 44.2	6001
45/07E-31D01 M	185.4	10-12-62 3-01-63	117.4 112.4*	68.0 73.0	6001
55/07E-13K01 M	107.0	10-18-62 3-21-63	a 55.5	51.5	6001
55/07E-14D01 M	130.4	10-17-62 3-18-63	75.3 78.9	55.1 51.5	6001
55/08E-06K01 M	58.7	10-31-62 3-28-63	17.9 18.4	40.8 40.3	6001
65/07E-12P01 M	248.3	10-08-62 2-25-63	17.2* 12.5	231.1 235.8	5050
65/08E-12L01 M	64.3	11-01-62 2-25-63 3-28-63	a 25.5	38.8	6001 5050 6001
65/08E-16M01 M	129.5	10-08-62 2-25-63	77.6 77.1	51.9 52.4	5050
65/08E-27J01 M	114.5	10-09-62 2-26-63	51.4 47.1	63.1 67.4	5050

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
DELTA-MENDOTA AREA					
5-22-11					
6S/08E-29J01 M	190.0	10-09-62 2-26-63	127.5 122.0	62.5 68.0	5050
7S/08E-22B01 M	128.0	2-27-63	@	77.3	5050
7S/08E-22L01 M	127.9	10-10-62 2-27-63	50.6 □		5050
7S/09E-04R01 M	65.6	10-10-62 2-26-63	19.4 16.0	46.2 49.6	6001 5050
7S/09E-26N01 M	68.4	10-10-62 3-04-63	□ □		5050
8S/08E-01N01 M	123.2	10-11-62 3-06-63	20.9 26.1	102.3 97.1	5050
8S/08E-15J01 M	172.8	10-11-62 3-06-63	63.2 68.2	109.6 104.6	5050
8S/09E-26H01 M	75.0	10-22-62 3-04-63	56.2 19.8	18.8 55.2	6001 5050
8S/09E-26H03 M	75.0	10-22-62 3-04-63	5.7 1.1	69.3 73.9	6001 5050
8S/10E-21L04 M	75.0	10-22-62 3-05-63	9.0 2.4	66.0 72.6	6001 5050
9S/08E-13D01 M	201.6	10-11-62 3-07-63	19.5 24.9	182.1 176.7	5050
9S/09E-18N01 M	153.6	10-11-62 3-07-63	36.0 37.2	117.6 116.4	5050
9S/09E-23L01 M	100.0	10-22-62 3-07-63	70.3 46.6	29.7 53.4	6001 5050
9S/10E-19B01 M	84.0	10-22-62 3-05-63	4.9 □	79.1	6001 5050
9S/10E-23J01 M	87.0	10-09-62 3-05-63	52.2 39.5*	34.8 47.5	5050
9S/11E-16H01 M	91.0	11-02-62	8.6	82.4	6001
DELTA-MENDOTA AREA					
5-22-11					
9S/11E-16H01 M CONT.	91.0	2-27-63 3-27-63	8.4 8.5	82.6 82.5	5050 6001
9S/11E-20J01 M	90.5	10-22-62 3-04-63	50.9 40.1	33.6 50.4	6001 5050
10S/09E-06A01 M	147.0	10-16-62 3-06-63	6.8 6.0	140.2 141.0	5050
10S/09E-08B01 M	167.0	10-16-62 3-06-63	87.9 77.0	79.1 90.0	5050
10S/10E-02R01 M	99.5	10-11-62 3-04-63	22.4 21.6	77.1 77.9	5050
10S/10E-11R01 M	106.6	10-11-62 2-27-63	22.2 18.9	84.4 87.7	5050
10S/10E-31G01 M	191.1	10-11-62 3-04-63	□ 167.8	23.3	5050
10S/11E-23D01 M	99.0	10-10-62 2-27-63	5.6 6.3	93.4 92.7	5050
10S/11E-27E02 M	101.3	10-10-62 2-27-63	50.0 51.7	51.3 49.6	5050
11S/10E-11J01 M	157.3	10-08-62 2-26-63	44.0 55.6	113.3 101.7	5050
11S/10E-22D01 M	246.8	10-10-62 2-26-63	141.2 138.0	105.6 108.8	5050
11S/11E-02J02 M	106.0	10-23-62 2-27-63	1.9 1.5	104.1 104.5	6001 5050
11S/11E-22K01 M	114.2	10-08-62 2-25-63	□ 7	113.5	5050
11S/11E-22D03 M	119.0	10-08-62 10-23-62 2-25-63	12.2 15.7 8.0	106.8 103.3 111.0	5050 6001 5050
11S/12E-31C01 M	132.0	10-08-62 2-25-63	31.5 30.6	100.5 101.4	5050

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
DELTA-MENDOTA AREA					
5-22.11					
125/12E-04D01 M	138.0	10-23-62 3-12-63	3.9 3.0	134.1 135.0	6001
125/12E-16H05 M	168.0	8-14-62 9-10-62 10-08-62 11-09-62 2-26-63 3-28-63 4-23-63 5-21-63 6-18-63	130.2 130.9 131.4 131.4 130.4 130.3 130.1 129.6 129.4	37.8 37.1 36.6 36.6 37.6 37.7 37.9 38.4 38.6	5000
125/12E-20J01 M	183.0	10-01-62	@		6001
125/12E-25D01 M	177.0	10-24-62 3-13-63	69.4 65.9	107.6 111.1	6001
125/12E-25D02 M	177.0	10-24-62 3-13-63	14.6 14.3	162.4 162.7	6001
125/13E-10N01 M	144.0	10-24-62 3-13-63	3.8 3.1	140.2 140.9	6001
125/14E-30C01 M	184.0	10-24-62 3-13-63	25.1 23.3	128.9 130.7	6001
CHOWCHILLA WATER DISTRICT					
5-22.12					
95/14E-25R01 M	185.0	10-25-62 2-15-63	69.7 67.9	115.3 117.1	6001
95/15E-22R02 M	216.5	10-26-61 11-21-61 12-20-61 1-17-62 2-27-62 3-21-62 4-25-62 5-21-62 6-19-62 7-25-62 8-24-62 9-20-62 10-18-62	105.0 97.3 96.4 93.0 75.1 73.0 86.0 101.2 101.2 101.2 101.2 101.2 101.2 101.2	111.5 119.2 120.1 123.5 141.4 143.5 130.5 115.3 115.3 115.3 115.3 115.3 115.3	6001
CHOWCHILLA WATER DISTRICT					
5-22.12					
95/15E-22R02 M	216.5	11-23-62 12-20-62 1-24-63 2-14-63 3-28-63 4-25-63 5-23-63 6-26-63	88.7 92.0 79.0 76.6 84.0 77.9 90.5 104.6	127.8 124.5 137.5 139.9 132.5 138.6 126.0 111.9	6001
95/15E-25J02 M	232.0	10-31-62 2-15-63	45.0 49.2	187.0 182.8	6001
95/15E-33B01 M	208.0	7-21-61 8-25-61 9-20-61 10-26-61 11-21-61 12-20-61 1-17-62 2-27-62 3-21-62 4-25-62 5-21-62 6-19-62 7-25-62 8-24-62 9-20-62 10-18-62 11-23-62 12-20-62 1-24-63 2-14-63 3-28-63 4-25-63 5-23-63 6-26-63	74.7 39.4 47.3 64.4 69.2 61.5 62.2 40.3 35.3 33.2 33.5 38.5 52.5 60.6 62.5 60.4 60.0 58.7 63.7 58.4 44.8 35.4 36.3 33.9	133.3 168.6 160.7 143.6 138.8 146.5 145.8 167.7 172.7 174.8 174.7 169.7 155.5 147.4 145.5 147.6 148.0 149.3 144.3 149.6 163.2 172.6 171.7 174.1	6001
95/16E-22R01 M	267.0	7-21-61 8-25-61 9-19-61 10-25-61 11-21-61 12-19-61 1-17-62 2-27-62	43.9 43.6 43.6 42.9 42.1 43.0 43.4 44.2	223.1 223.1 223.4 224.1 224.9 224.0 223.6 222.8	6001

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
CHOWCHILLA WATER DISTRICT					
5-22-12			5-22-12		
95/16E-22R01 M CONT.	267.0	3-21-62 4-25-62 5-21-62 6-19-62 7-25-62 8-24-62 9-20-62 10-18-62 11-23-62 12-20-62 1-24-63 2-14-63 3-28-63 4-24-63 5-23-63 6-26-63	44.2 44.2 44.4 43.9 43.3 41.9 41.2 40.6 40.3 40.9 41.7 42.3 43.2 42.7 45.0 43.8	222.8 222.8 222.6 223.1 223.7 225.1 225.8 226.4 226.7 226.1 225.3 224.7 224.3 224.0 223.2	6001
95/17E-21L01 M	320.0	10-23-62 2-13-63	98.5 97.2	221.5 222.8	6001
95/17E-35J01 M	320.0	10-23-62 2-13-63	75.5 86.0	244.5 234.0	6001
95/18E-33C01 M	365.0	10-22-62 2-13-63	50.1 51.0	314.9 314.0	6001
105/14E-08B03 M	150.0	7-21-61 8-25-61 9-20-61 10-26-61 11-21-61 12-21-61 1-17-62 2-27-62 3-22-62 4-25-62 5-21-62 6-26-63	77.5 78.7 78.7 78.4 78.1 78.9 78.9 80.5 80.7 84.3 85.0 85.5	72.1 71.3 71.3 72.6 72.9 72.9 72.9 72.9 72.9 72.9 72.9 72.9	6001
CHOWCHILLA WATER DISTRICT					
5-22-12			5-22-12		
105/14E-08B03 M CONT.	150.0	2-14-63 3-28-63 4-25-63 5-23-63 6-26-63	66.0 68.3 66.7 68.2 72.1	84.0 81.7 83.3 81.8 77.9	6001
105/14E-26C01 M	156.0	10-30-62 10-31-62	DRY #		6001
105/15E-23K01 M	194.0	10-29-62 2-18-63	82.9 74.8	111.1 119.2	6001
105/15E-27D03 M	183.0	9-20-61 10-26-61 11-21-61 12-20-61 1-17-62 2-27-62 3-21-62 4-25-62 5-21-62 6-26-63	98.1 92.2 87.7 84.5 82.5 81.3 77.1 # # #	84.9 92.2 95.3 98.5 100.5 101.7 105.9	6001
105/16E-09E01 M	232.0	7-20-61 8-25-61 10-20-61 11-21-61 12-17-61 1-17-62 2-27-62 3-21-62 4-24-62 5-21-62	97.9 103.4 90.9 82.8 78.1 74.8 73.9 73.5 77.2 79.7	134.1 128.6 141.1 149.2 153.9 157.2 158.1 158.5 158.8 152.9	6001

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
CHOWCHILLA WATER DISTRICT					
5-22.12					
10S/16E-09E01 M	232.0	6-19-62	89.5	142.5	6001
CONT.		7-25-62	88.1	143.9	
		8-24-62	84.1	147.9	
		9-19-62	79.9	152.1	
		10-17-62	77.2	154.8	
		11-21-62	77.2	154.8	
		12-20-62	77.2	154.8	
		1-24-63	82.6	149.4	
		2-14-63	71.0	161.0	
		3-28-63	76.2	155.8	
		4-25-63	77.8	154.2	
		5-23-63	79.7	152.3	
		6-26-63	80.5	151.5	
10S/16E-29R01 M	209.5	10-29-62	82.2	127.3	6001
		2-19-63	77.9	131.6	
MADERA IRRIGATION DISTRICT					
5-22.13					
10S/18E-20B01 M	326.0	10-22-62	62.2	263.8	6001
		2-13-63	62.4	263.6	
10S/19E-16D01 M	387.0	10-22-62	17.3	369.7	6001
		2-13-63	24.7	362.3	
11S/16E-06A01 M	196.0	7-20-61	75.0	121.0	6001
		8-24-61	79.9	116.1	
		9-19-61	78.7	117.3	
		10-25-61	78.2	117.8	
		11-21-61	78.0	118.0	
		12-19-61	74.8	121.2	
		1-18-62	72.7	123.3	
		2-26-62	70.6	125.4	
		3-21-62	70.0	126.0	
		4-24-62	71.7	124.3	
		5-22-62	72.5	123.5	
		6-18-62	73.4	122.6	
		7-24-62	75.0	121.0	
		8-24-62	76.0	120.0	
		9-19-62	76.4	119.6	
		10-19-62	74.9	121.1	
		11-21-62	72.2	123.8	
		12-20-62	71.8	124.2	
		1-23-63	68.4	127.6	
		2-14-63	67.4	128.6	
MADERA IRRIGATION DISTRICT					
5-22.13					
11S/16E-06A01 M	196.0	3-28-63	68.2	127.8	6001
		4-25-63	68.8	127.2	
		5-23-63	70.2	125.8	
		6-26-63	70.5	125.5	
11S/16E-10N01 M	205.0	7-21-61	78.4	126.6	6001
		8-24-61	79.7	125.3	
		9-18-61	80.2	124.8	
		10-25-61	79.2	125.8	
		11-21-61	78.6	126.4	
		12-19-61	78.0	127.0	
		1-18-62	76.7	128.3	
		2-26-62	76.6	128.4	
		3-21-62	75.4	129.6	
		4-24-62	76.3	128.7	
		5-22-62	75.7	129.3	
		6-18-62	75.3	129.7	
		7-24-62	75.4	129.6	
		8-24-62	74.9	130.1	
		9-19-62	73.3	131.7	
		10-19-62	72.0	133.0	
		11-21-62	70.6	134.4	
		12-20-62	69.6	135.4	
		1-23-63	68.8	136.2	
		2-14-63	68.2	136.8	
		3-28-63	70.0	135.0	
		4-25-63	69.9	135.1	
		5-24-63	70.3	134.7	
		6-26-63	71.5	133.5	
11S/17E-27C01 M	250.6	2-19-63	70.9	179.7	6001
11S/18E-20N01 M	274.4	12-21-62	72.5	201.9	6001
		2-19-63	72.5		
11S/18E-27M01 M	284.0	7-20-61	80.5	203.5	6001
		8-24-61	80.3	203.7	
		9-19-61	79.1	204.9	
		10-25-61	79.3	204.7	
		11-21-61	80.0	204.0	
		12-19-61	79.6	204.4	
		1-16-62	79.2	203.8	
		2-27-62	79.2	204.8	
		3-21-62	79.2	204.8	
		4-24-62	80.6	203.4	

GROUND WATER LEVELS AT WELLS

STATE	WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MADERA IRRIGATION DISTRICT						
5-22.13						
115/18E-27M01 M	284.0	6001	5-21-62	79.8	204.2	6001
CONT.			6-10-62	80.9	203.1	
			7-24-62	81.5	202.5	
			8-23-62	81.5	200.0	
			9-20-62	84.0	203.0	
			10-17-62	81.0	203.0	
			11-20-62			
			12-21-62			
			1-23-63	81.0	203.0	
			2-13-63	80.3	203.7	
			3-27-63	80.2	203.8	
			4-25-63	80.5	203.5	
			5-24-63	80.5	203.5	
			6-26-63	80.7	203.3	
115/20E-22M01 M	416.0	6001	10-15-62	107.7	308.3	6001
			2-11-63	112.9	303.1	
125/16E-23A01 M	205.4	6001	12-26-62	69.4	136.0	6001
			2-19-63	66.0	139.4	
125/17E-08G01 M	229.0	6001	7-20-61	85.9	143.1	6001
			8-23-61	89.7	139.3	
			9-18-61	89.9	139.1	
			10-24-61	85.2	143.8	
			11-20-61	81.8	147.2	
			12-18-61	79.3	149.7	
			1-16-62	78.5	150.5	
			2-26-62	75.7	153.3	
			3-20-62	76.8	152.2	
			4-24-62	78.6	150.4	
			5-21-62	79.5	149.5	
			6-18-62	82.5	146.5	
			7-24-62	84.7	144.3	
			8-23-62	86.3	142.7	
			9-19-62	85.5	143.5	
			10-17-62	83.4	145.6	
			11-20-62	81.2	147.8	
			12-20-62	79.2	149.8	
			1-23-63	77.7	151.3	
			2-12-63	77.0	152.0	
			3-27-63	79.3	149.7	
			4-24-63	79.1	149.9	
			5-23-63	78.9	150.1	
			6-26-63	82.9	146.1	
MADERA IRRIGATION DISTRICT						
5-22.13						
125/17E-20P01 M	218.0	6001	7-20-61			6001
			8-23-61			
			9-18-61	93.8*		
			10-24-61	90.9*		
			11-20-61	79.5*		
			12-18-61	81.2*		
			1-16-62	71.9		
			2-26-62	69.0		
			3-20-62	77.2		
			4-24-62	79.0		
			5-21-62			
			6-18-62			
			7-24-62	87.6		
			8-23-62			
			9-19-62	91.5		
			10-17-62	84.5		
			11-20-62	74.5		
			12-20-62	77.9		
			1-23-63	77.7		
			2-12-63	67.5		
			3-27-63	79.9		
			4-24-63	79.1		

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MADERA IRRIGATION DISTRICT					
5-22.13					
125/17E-26C01 M CONT.	235.0	12-20-62	62.8	172.2	6001
		1-23-63	62.0	173.0	
		2-12-63	61.8	173.2	
		3-27-63	64.6	170.4	
		4-24-63	64.6	170.4	
		5-23-63	64.8	170.2	
		6-25-63	65.0	170.0	
125/17E-34R01 M	235.0	7-19-61	77.2	157.8	6001
		8-23-61	81.5	153.5	
		9-18-61	72.0	163.0	
		10-24-61	70.2	164.8	
		11-20-61	68.3	166.7	
		12-18-61	63.2	171.8	
		1-16-62	63.3	171.7	
		2-26-62	59.4	175.6	
		3-20-62	59.9	175.1	
		4-24-62	65.5	169.5	
		5-21-62	64.4	170.6	
		6-18-62	65.8	169.2	
		7-25-62	69.9	165.1	
		8-22-62	67.3	167.7	
		9-19-62	64.3	170.7	
		10-17-62	63.8	171.2	
		11-20-62	61.2	173.8	
		12-20-62	60.5	174.5	
		1-23-63	60.5	174.5	
		2-12-63	56.8	178.2	
		3-27-63	60.0	175.0	
		4-24-63	64.9	170.1	
		5-22-63	61.8	173.2	
		6-25-63	70.1	164.9	
125/18E-13R01 M CONT.	288.0	7-19-61	81.2	205.8	6001
		8-23-61	83.3	203.7	
		9-18-61	81.3	205.7	
		10-24-61	81.3	205.7	
		11-20-61	80.0	207.0	
		12-18-61	79.7	207.3	
		1-16-62	79.4	207.6	
		2-26-62	79.4	207.6	
		3-20-62	78.7	208.3	
		4-24-62	80.6	206.4	
		5-21-62	80.6	206.4	
		6-18-62	82.4	204.6	
MADERA IRRIGATION DISTRICT					
5-22.13					
125/18E-13R01 M CONT.	288.0	7-23-62	82.2	204.8	6001
		8-22-62	84.7	202.3	
		9-18-62	81.9	205.1	
		10-17-62	81.1	205.9	
		11-21-62	80.2	205.8	
		12-20-62	79.9	207.1	
		1-23-63	79.7	207.3	
		2-12-63	79.3	207.7	
		3-27-63	80.7	206.3	
		4-24-63	79.5	207.5	
		5-23-63	79.0	208.0	
		6-25-63	80.5	206.5	
125/18E-21G01 M	265.0	12-20-62	81.2	183.8	6001
		2-18-63	80.2	184.8	
125/18E-21H01 M	265.0	7-19-61	81.7	183.3	
		8-23-61	84.0	181.0	
		9-18-61	83.9	181.1	
		10-24-61	82.8	182.2	
		11-20-61	82.4	182.6	
		12-18-61	81.7	183.3	
		1-18-62	80.4	184.6	
		2-26-62	79.1	185.9	
		3-20-62	78.4	186.6	
		4-24-62	79.3	185.7	
		5-21-62	79.8	185.2	
		6-18-62	80.4	184.6	
		7-23-62	81.4	183.6	
		8-22-62	81.7	183.5	
		9-19-62	81.3	183.7	
		10-17-62	80.4	184.6	
		11-21-62	79.4	185.6	
		12-20-62	79.2	185.8	
		1-23-63	80.0	185.0	
		2-12-63	77.6	187.4	
		3-27-63	77.1	187.9	
		4-24-63	76.9	186.1	
		5-23-63	77.2	187.8	
		6-25-63	77.9	187.1	
125/19E-28A01 M	307.0	12-20-62	82.3	224.7	6001
		2-11-63	81.6	225.4	

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GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
WEST CHONCHILLA-MADERA AREA					
5-22.14					
10S/13E-14H01 M	120.5	10-24-62 2-20-63	□ □		6001
10S/14E-01R01 M	177.0	10-29-62 2-12-63	70.6 66.5	106.4 110.5	6001
10S/14E-31H01 M	131.0	7-21-61 8-25-61 9-20-61 10-26-61 11-21-61 12-20-61 1-17-62 2-27-62 3-22-62 4-25-62 5-21-62 6-19-62 7-25-62 8-24-62 9-20-62 10-18-62 11-21-62 12-21-62	28.6 29.4 30.4 31.6 31.3 31.0 30.8 23.8 18.7 19.0 18.6 20.8 21.7 23.1 24.2 25.1 26.1 28.7	102.4 101.6 100.6 99.4 98.7 100.0 109.2 107.2 112.3 112.0 112.4 110.2 109.3 107.9 106.8 105.9 104.9 102.3	6001
		1-24-63 2-14-63 3-28-63 4-25-63 5-23-63 6-26-63	27.4 26.9 26.0 23.6 20.6 19.8	103.6 104.1 105.0 107.4 110.4 111.2	
10S/14E-34H01 M	148.0	7-21-61 8-25-61 9-20-61 10-26-61 11-21-61 12-20-61 1-17-62 2-27-62 3-22-62 4-25-62 5-21-62 6-19-62 7-25-62 8-24-62	50.8 55.4 56.1 51.0 52.2 52.5 52.8 53.6 52.3 52.4 52.4 52.4 56.9 54.4	97.2 92.6 91.9 97.0 95.8 95.5 95.2 94.4 95.7 95.6 95.6 95.6 91.1 93.6	6001

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
WEST CHONCHILLA-MADERA AREA					
5-22.14					
10S/14E-34H01 M	148.0	9-20-62 10-18-62 11-21-62 12-21-62 1-24-63 2-14-63 3-28-63 4-25-63 5-23-63 6-26-63	□ 55.9 59.7 56.2 55.8 49.5 50.9 52.1 52.1 53.0	92.1 88.3 91.8 92.2 98.5 97.1 95.9 95.9 95.0	6001
11S/14E-33L01 M	135.0	7-24-62 8-23-62 9-19-62 10-19-62 11-20-62 12-20-62 1-23-63 2-19-63 3-27-63 4-25-63 5-23-63 6-25-63	□ 18.4 15.0 15.0 13.8 12.8 12.6 12.0 12.1 14.0 11.0	116.6 120.0 121.2 122.2 122.4 123.0 122.9 124.0	6001
11S/15E-33E01 M	158.0	10-19-62 2-19-63	□ 26.6	131.4	6001
11S/15E-33P01 M	160.0	7-20-61 8-24-61 9-19-61 10-25-61 11-22-61 12-19-61 1-18-62 2-26-62 3-20-62 4-20-62 5-22-62 6-18-62 7-26-62 8-23-62 9-19-62 10-19-62 11-21-62 12-20-62	26.1 36.5 35.9 37.6 28.1 25.1 25.2 24.7 27.6 27.6 36.7 38.2 34.9 34.9 33.7 24.6 23.6	133.9 123.5 124.1 122.4 131.9 134.5 134.8 135.2 132.5 123.3 125.3 125.8 125.1 125.6 126.3 136.6 136.2	6001

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
WEST CHOWCHILLA-MADERA AREA					
5-22.14					
135/16E-02C01 M	195.0	2-26-62	60.1	134.9	6001
CONT.		3-20-62	58.9	136.1	
		4-24-62	60.3	134.7	
		5-21-62	62.1	132.9	
		6-18-62	70.1	124.9	
		7-24-62	80.2	114.8	
		8-23-62	83.2	111.8	
		9-19-62	78.0	117.0	
		10-17-62	77.2	117.8	
		11-21-62	66.4	128.6	
		12-20-62	73.6	121.4	
5-22.15					
FRESNO IRRIGATION DISTRICT					
125/20E-14A01 M	360.0	7-22-62	96.6	263.4	6001
		8-22-62	96.9	263.1	
		9-19-62	96.5	263.5	
		11-21-62	95.6	264.4	
		12-19-62	97.0	263.0	
		1-23-63	95.9	264.1	
		2-13-63	95.8	284.2	
		3-25-63	95.2	284.8	
		4-23-63	101.2	258.8	
		5-21-63	95.2	264.8	
		6-24-63	96.8	263.2	
125/21E-34D01 M	387.7	7-27-62	58.4	329.3	5631
		8-30-62	□		
		9-28-62	□		
		10-27-62	59.0		
		11-27-62	62.3		
		12-27-62	□		
		2-01-63	57.6		
		2-27-63	57.1		
		3-28-63	57.0		
		5-01-63	56.0		
		5-28-63	57.3		
125/22E-21E01 M	473.0	6-27-63	57.6	330.1	6001
		10-15-62	27.6	445.4	

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
WEST CHOWCHILLA-MADERA AREA					
5-22.14					
11S/15E-33P01 M	160.0	1-23-63	23.6	136.4	6001
CONT.		2-19-63	24.6	135.4	
		3-27-63	31.1	128.9	
		4-25-63	35.5	124.5	
		5-24-63	36.1	123.9	
		6-26-63	37.8	122.2	
		7-20-61	□		
		8-24-61	□		
		9-19-61	19.5	130.5	
		10-25-61	16.7	133.3	
		11-22-61	12.9	137.1	
12S/14E-25H01 M	150.0	12-19-61	13.3	136.7	6001
		1-18-62	13.4	136.6	
		2-26-62	12.0	138.0	
		3-20-62	11.1	138.9	
		4-24-62	□		
		5-22-62	□		
		6-18-62	□		
		7-24-62	□		
		8-23-62	□		
		9-19-62	13.8	136.2	
		10-19-62	17.0	133.0	
12S/14E-28G01 M	145.0	11-21-62	14.0	136.0	6001
		12-20-62	12.1	137.9	
		1-20-63	14.0	136.0	
		2-19-63	13.5	136.5	
		3-27-63	□		
		4-25-63	12.6	137.4	
		5-23-63	12.2	137.8	
		6-25-63	□		
		10-25-62	13.9	131.1	
		2-19-63	13.5	131.5	
		12S/15E-14L01 M	165.1	10-24-62	
		2-19-63	35.4	129.7	
		7-19-61	69.7	125.3	
		8-23-61	71.6	123.2	
		9-18-61	75.2	119.8	
		10-24-61	70.7	124.3	
		11-20-61	63.4	131.6	
		12-18-61	59.8	135.2	
		1-18-62	56.4	138.6	
13S/16E-02C01 M	195.0	2-26-62	60.1	134.9	6001
		3-20-62	58.9	136.1	
		4-24-62	60.3	134.7	
		5-21-62	64.1	132.9	
		6-18-62	70.1	124.9	
		7-24-62	80.2	114.8	
		8-23-62	83.2	111.8	
		9-19-62	78.0	117.0	
		10-17-62	77.2	117.8	
		11-21-62	66.4	128.6	
		12-20-62	73.6	121.4	
12S/20E-14A01 M	360.0	1-23-63	56.4	138.6	6001
		2-12-63	56.0	139.0	
		3-27-63	64.8	130.2	
		4-24-63	56.6	138.4	
		5-22-63	69.1	125.9	
		7-22-62	96.6	263.4	
		8-22-62	96.9	263.1	
		9-19-62	96.5	263.5	
		11-21-62	95.6	264.4	
		12-19-62	97.0	263.0	
		1-23-63	95.9	264.1	
12S/21E-34D01 M	387.7	2-13-63	95.8	284.2	5631
		3-25-63	95.2	284.8	
		4-23-63	101.2	258.8	
		5-21-63	95.2	264.8	
		6-24-63	96.8	263.2	
		7-27-62	58.4	329.3	
		8-30-62	□		
		9-28-62	□		
		10-27-62	59.0	328.7	
		11-27-62	62.3	325.4	
		12-27-62	□		
12S/22E-21E01 M	473.0	2-01-63	57.6	330.1	6001
		2-27-63	57.1	330.6	
		3-28-63	57.0	330.7	
		5-01-63	56.0	331.7	
		5-28-63	57.3	330.4	
		6-27-63	57.6	330.1	
		10-15-62	27.6	445.4	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO IRRIGATION DISTRICT					
125/22E-21E01 M	473.0	2-12-63	24.5	448.5	6001
135/17E-22B01 M	220.8	7-02-62	44.1	176.7	5631
		7-25-62	42.1	178.7	
		8-28-62	41.0	179.8	
		9-26-62	40.6	180.2	
		10-24-62	41.1	179.7	
		11-30-62	46.0	174.8	
		12-29-62	42.7	178.1	
		1-28-63	42.4	178.4	
		2-25-63	42.5	178.3	
		3-28-63	43.3	177.5	
		4-29-63	46.7	174.1	
		5-27-63	41.6	179.2	
		6-27-63	□		
135/17E-33D01 M	212.0	7-19-61	□	148.4	6001
		8-21-61	63.6	150.2	
		9-18-61	61.8		
		10-23-61	□		
		11-20-61	61.3	150.7	
		12-18-61	60.2	151.6	
		1-16-62	51.7	160.3	
		2-26-62	51.5	160.7	
		3-20-62	50.5	161.5	
		4-23-62	51.7	160.3	
		5-21-62	51.1	160.9	
		6-18-62	□		
		7-23-62	58.0	154.0	
		8-23-62	58.0	153.0	
		9-22-62	58.4	153.6	
		10-18-62	55.0	157.0	
		11-21-62	26.0	156.0	
		12-19-62	54.8	157.2	
		1-23-63	50.2	161.8	
		2-11-63	50.1	161.9	
		3-23-63	52.0	150.0	
		4-23-63	54.0	158.0	
		5-22-63	52.0	160.0	
		6-24-63	53.5	158.5	
FRESNO IRRIGATION DISTRICT					
135/18E-10P01 M	256.0	7-19-61	57.0	201.0	6001
		8-21-61	56.2	201.8	
		9-18-61	55.4	202.6	
		10-23-61	56.6*	201.4	
		11-21-61	56.7	201.3	
		12-18-61	55.6	202.4	
		1-16-62	57.0	201.0	
		2-26-62	56.6	201.4	
		3-20-62	56.2	201.8	
		4-23-62	56.1	202.9	
		5-21-62	55.2	202.8	
		6-18-62	54.5	200.6	
		7-16-62	57.4	200.5	
		8-22-62	53.6	200.4	
		9-18-62	52.8	205.2	
		10-16-62	53.5	204.5	
		11-21-62	56.8	201.2	
		12-19-62	55.1	202.9	
		1-23-63	55.5	202.5	
		2-27-63	55.2	202.8	
		3-25-63	55.7	202.3	
		4-23-63	57.1	200.9	
		5-21-63	55.5	202.5	
		6-24-63	53.9	204.1	
135/18E-16D01 M	255.8	10-22-62	56.3	199.5	6001
		2-20-63	56.8	199.0	
135/18E-34D01 M	245.0	7-19-61	62.8	182.2	6001
		8-21-61	63.3	181.7	
		9-18-61	62.7	182.3	
		10-23-61	61.5	183.5	
		11-20-61	63.8	181.2	
		12-18-61	63.5	181.5	
		1-16-62	62.7	182.3	
		2-26-62	62.5	182.5	
		3-20-62	62.8	182.2	
		4-23-62	65.0	180.0	
		5-21-62	62.3	182.7	
		6-18-62	62.0	183.0	
		7-23-62	62.8	182.2	
		8-22-62	62.5	182.5	
		9-18-62	62.3	182.7	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO IRRIGATION DISTRICT					
135/18E-34D01 M CONT.	245.0	5-22.15	62.1	182.9	6001
		10-16-62	66.2	178.8	
		11-21-62	62.8	182.2	
		12-19-62	62.5	182.5	
		1-23-63	61.3	183.7	
		2-27-63	62.0	183.0	
		3-25-63	65.5	179.5	
		4-23-63	64.0	181.0	
		5-22-63	60.5	184.5	
		6-24-63	60.5	184.5	
135/19E-09D01 M	288.2	5-22.15	64.4	223.8	5631
		7-25-62	64.4	223.8	
		8-28-62	64.4	223.8	
		9-26-62	64.4	223.7	
		10-24-62	65.5	222.7	
		11-20-62	64.6	223.0	
		12-28-62	66.2	222.0	
		1-28-63	65.7	222.5	
		2-25-63	65.8	222.4	
		3-28-63	65.5	222.7	
		4-29-63	65.5	222.7	
		6-27-63	65.5	222.7	
135/19E-16K01 M	290.0	5-22.15	73.4	216.6	6001
		7-19-61	73.4	216.6	
		8-21-61	73.2	216.8	
		9-18-61	73.4	216.6	
		10-23-61	73.5	216.5	
		11-20-61	74.8	215.2	
		12-18-61	75.5	214.5	
		1-16-62	76.0	214.0	
		2-26-62	75.0	215.0	
		3-20-62	74.0	216.0	
		4-23-62	75.2	214.8	
		5-21-62	73.6	216.4	
		6-18-62	73.3	216.7	
		7-23-62	72.9	217.1	
		8-22-62	72.7	217.3	
		9-18-62	72.5	217.5	
		10-18-62	72.5	217.5	
		11-21-62	74.4	215.6	
		12-19-62	73.7	216.3	
		2-16-63	73.4	216.6	
		3-25-63	73.1	216.9	
FRESNO IRRIGATION DISTRICT					
135/19E-16K01 M CONT.	290.0	5-22.15	77.8	212.2	6001
		4-23-63	73.0	217.0	
		5-21-63	74.3	215.7	
135/20E-02L01 M	336.7	5-22.15	73.9*	262.8	5631
		8-31-61	74.4	262.3	
		9-25-61	72.7	264.0	
		10-27-61	73.1	263.6	
		11-29-61	73.8	262.9	
		12-30-61	74.1	262.6	
		2-01-62	74.7	262.0	
		3-28-62	74.7	262.0	
		4-30-62	74.8	261.9	
		5-31-62	75.2	261.5	
		6-28-62	75.7	261.0	
		7-21-62	75.9	260.8	
		8-30-62	77.0	259.7	
		9-27-62	77.0	259.7	
		10-22-62	77.0	259.7	
		11-27-62	77.1	259.6	
		12-27-62	78.9	257.8	
		2-01-63	78.2	258.5	
		2-27-63	78.0	258.7	
		3-28-63	78.1	258.6	
		5-01-63	78.2	258.5	
		5-28-63	81.8	254.9	
		6-27-63	82.0	254.7	
135/20E-21J01 M	310.0	5-22.15	81.5	228.5	4200
		8-01-62	83.4	226.6	
		8-29-62	82.8	227.2	
		10-02-62	81.8	228.2	
		10-31-62	81.7	228.3	
		12-01-62	81.2	228.8	
		12-26-62	81.2	228.8	
		1-30-63	80.9	229.1	
		2-27-63	80.2	229.8	
		4-02-63	79.4	230.6	
		4-30-63	79.1	230.9	
		5-28-63	79.5	230.5	
		6-31-63	82.0	228.0	
135/21E-23D01 M	364.0	5-22.15	38.9	325.1	5631
		7-28-62	38.9	325.1	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO IRRIGATION DISTRICT					
5-22-15					
135/21E-23D01 M CONT.	364.0	8-30-62	37.2	326.8	5631
		9-27-62	35.8	328.2	
		10-26-62	36.2	327.8	
		11-28-62	37.6	326.4	
		12-28-62	37.7	326.3	
		2-01-63	38.4	325.6	
		2-27-63	38.6	325.4	
		3-28-63	39.1	324.9	
		5-01-63	39.3	324.7	
		5-28-63	38.6	325.4	
		6-27-63	38.4	325.6	
135/23E-31P01 M	406.5	7-28-62	34.9	371.6	5631
		8-25-62	35.5	371.0	
		9-27-62	34.7	371.8	
		10-26-62	34.2	372.3	
		11-28-62	33.0	373.5	
		12-27-62	33.5	373.0	
		2-01-63	34.2	372.3	
		2-27-63	34.0	372.5	
		3-28-63	34.2	372.3	
		5-01-63	34.7	371.8	
		5-28-63	34.5	372.0	
145/17E-13H02 M	215.0	6-27-63	34.6	371.9	6001
		7-20-61	74.6	140.4	
		8-22-61	76.7	138.3	
		9-19-61	77.7	137.3	
		10-23-61	73.7	141.3	
		11-20-61	70.0	145.0	
		12-19-61	69.3	145.7	
		1-17-62	67.5	147.5	
		2-27-62	68.2	146.8	
		3-20-62	75.6	138.5	
		4-23-62	76.5	139.4	
		5-21-62	70.5	144.5	
		6-18-62	74.7	140.3	
		7-24-62	84.5	130.5	
		8-23-62	88.2	126.8	
		9-18-62	78.5	136.5	
		10-16-62	75.3	139.7	
		11-21-62	73.9	141.1	
		12-19-62	71.2	143.8	
		1-23-63	69.5	145.5	
		2-25-63	68.4	146.6	

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO IRRIGATION DISTRICT					
5-22-15					
145/17E-13H02 M CONT.	215.0	3-25-63	71.3	143.7	6001
		4-23-63	70.3	144.7	
		5-22-63	□		
		6-24-63	□		
145/18E-08J01 M	227.4	7-02-62	68.3	159.1	5631
		7-25-62	69.0	158.4	
		8-28-62	80.2	147.2	
		9-26-62	69.0	158.4	
		10-24-62	66.6	160.8	
		11-29-62	66.0	161.4	
		12-29-62	65.1	162.3	
		1-28-63	64.9	162.5	
		2-25-63	65.1	162.3	
		3-28-63	64.9	162.5	
		4-29-63	67.8	159.6	
		5-27-63	67.1	160.3	
6-25-63	67.5	159.9			
145/19E-20B01 M	247.2	7-02-62	49.9	197.3	5631
		7-25-62	52.0	195.2	
		8-29-62	55.4	191.8	
		9-26-62	54.7	192.5	
		10-25-62	53.7	193.5	
		11-29-62	53.1	194.1	
		12-29-62	52.7	194.5	
		1-31-63	55.5	191.7	
		2-26-63	53.6	193.6	
		3-28-63	53.4	193.8	
		4-30-63	56.4	190.8	
		5-27-63	56.1	191.1	
6-26-63	56.5	190.7			
145/20E-06H01 M	282.5	7-26-61	71.8*	210.7	5631
		8-29-61	73.6*	208.9	
		9-27-61	71.8*	210.7	
		10-28-61	64.9	217.6	
		11-26-61	64.6	217.9	
		12-26-61	64.3	218.2	
		1-26-62	64.1	218.4	
		2-27-62	63.6	218.9	
		4-11-62	71.0*	211.5	
		4-27-62	71.2*	211.3	
		5-29-62	65.3	217.2	
		6-29-62	71.2	211.3	

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO IRRIGATION DISTRICT					
5-22.15			5-22.15		
14S/20E-06H01 M CONT.	282.5	7-25-62 8-30-62 9-27-62 10-25-62 11-28-62 12-28-62 1-31-63 2-26-63 3-28-63 4-30-63 5-29-63 6-26-63	68.1 74.2 66.4 67.0 72.0 71.1 71.4 70.3 70.5 65.3 66.4 65.2	214.4 208.3 216.1 215.5 210.5 211.4 212.2 212.0 212.0 216.1 217.3	5631
14S/20E-14A01 M	334.0	7-27-62 8-29-62 9-27-62 10-26-62 11-28-62 12-27-62 1-31-63 2-27-63 3-28-63 4-30-63 5-27-63 6-26-63	45.9 46.2 46.0 45.4 44.6 44.5 45.0 44.8 45.0 42.4 □ □	288.1 287.8 288.0 288.6 289.4 289.5 289.0 289.2 289.0 291.6 □ □	5631
14S/22E-01P01 M CONT.	400.0	7-25-62 8-30-62 9-27-62 10-25-62 11-28-62 12-28-62 1-31-63 2-26-63 3-28-63 4-30-63 5-29-63 6-26-63	50.1 50.6 46.0 □ □ □ □ □ □ □ □ □	349.9 349.4 354.0 □ □ □ □ □ □ □ □ □	5631
15S/20E-13E02 M	282.5	7-27-61 8-30-61 9-28-61 10-30-61 11-30-61 12-29-61 2-01-62 2-26-62 4-10-62 5-01-62 5-29-62 6-28-62 7-27-62 8-29-62 9-27-62 10-25-62 11-28-62 12-28-62 1-31-63 2-26-63 3-28-63 4-30-63 5-29-63 6-26-63	37.0 37.8 37.6 38.2 38.8 38.8 38.7 38.7 35.4 40.1 39.8 38.8 37.1 36.4 37.6 37.1 41.6 38.8 38.6 38.8 39.0 40.1 40.1 40.4	245.5 244.7 244.9 244.3 243.7 243.7 243.8 247.1 242.4 242.7 243.7 245.4 246.1 244.9 245.4 240.9 243.7 243.9 243.7 243.5 242.4 242.4 242.1	5631
CITY OF FRESNO					
13S/20E-23B01 M	325.0	7-01-61 8-01-61 9-01-61 10-01-61 11-01-61 12-01-61 1-01-62 2-01-62 3-01-62 4-01-62 5-01-62 6-01-62	81.3 83.3 83.3 78.4 78.9 78.8 79.9 79.8 79.7 81.8 82.3	243.7 241.7 246.6 246.1 246.2 245.1 245.2 245.3 243.2 243.2 242.7	4200

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
CITY OF FRESNO					
5-22-16					
14S/20E-01D01 M	303.9	7-01-62	75.3	228.6	4200
CONT.		8-01-62	76.9	227.0	
		9-01-62	77.8	226.1	
		10-01-62	75.9	228.0	
		11-01-62	75.0	228.9	
		12-01-62	75.0	228.9	
		1-01-63	74.8	229.1	
		2-01-63	73.9	230.0	
		3-01-63	73.8	230.1	
		4-01-63	74.0	229.9	
		5-01-63	73.7	230.2	
		6-01-63	75.8	228.1	
14S/20E-10M01 M	291.4	8-30-62	89.7	201.7	4200
		10-03-62	90.4	202.0	
		10-03-62	88.8	202.6	
		10-31-62	86.1	205.3	
		11-28-62	83.3	208.1	
		12-26-62	80.0	211.4	
		1-30-63	76.2	215.2	
		2-28-63	75.4*	216.0	
4-03-63	75.9	215.5			
5-02-63	75.4	216.0			
5-29-63	76.3	215.1			
FRESNO SLOUGH AREA					
13S/15E-28H01 M	162.0	10-19-62	□		6001
13S/15E-35D02 M	165.5	2-07-63	□		6001
		7-19-61	67.6*	97.9	
		8-21-61	65.2*	100.3	
		9-18-61	50.0*	115.5	
		10-23-61	46.5*	119.0	
		11-21-61	38.0	127.5	
		12-18-61	26.8	138.7	
		1-16-62	30.9	136.6	
		2-27-62	32.6*	132.9	
		3-20-62	33.1*	132.4	
		4-23-62	34.5*	113.1	
		5-21-62	32.5*	111.0	
		6-18-62	38.6*	106.9	
		7-23-62	65.6*	99.9	
8-23-62	69.6*	95.9			
9-18-62	51.0*	114.5			

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA	STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO SLOUGH AREA											
5-22.17											
135/15E-35D02 M	165.5	10-16-62	47.0*	118.5	6001	14S/15E-25H02 M	160.0	2-26-62	19.1	140.9	6001
CONT.		11-21-62	33.2	132.3		CONT.		3-20-62	19.2	140.8	
		12-19-62	31.3	134.2				4-23-62	22.6	137.4	
		1-23-63	34.8	130.7				5-21-62	24.1	135.9	
		2-07-63	43.0	122.5				9-18-62	26.3	132.7	
		3-27-63	53.9	111.6				7-24-62	27.6	132.4	
		4-23-63	37.5	128.0				8-28-62	28.5	131.5	
		5-22-63	41.9	123.6				9-18-62	28.2	131.8	
		6-25-63	59.9	105.6				10-16-62	25.3	134.7	
135/16E-25J01 M	196.0	10-19-62	□		6001			11-21-62	21.5	138.5	
		10-20-62	#					12-19-62	20.6	139.4	
135/17E-17A01 M	205.0	7-19-61	□		6001			1-23-63	19.3	140.7	
		8-21-61	21.4	183.6				2-26-63	20.9	139.1	
		9-18-61	21.1	183.9				3-26-63	23.8	136.2	
		10-23-61	21.0	184.0				4-23-63	23.0	137.0	
		11-20-61	20.6	184.4				5-22-63	23.8	136.2	
		12-18-61	20.4	184.6				6-24-63	26.3	133.7	
		1-16-62	19.4	185.6							
		2-26-62	19.6	185.4							
		3-20-62	19.6	185.4							
		4-23-62	□								
		5-21-62	20.2	184.8							
		6-18-62	21.3	183.7							
		7-23-62	20.1	184.9							
		8-22-62	20.8	184.2							
		9-22-62	20.0	185.0							
		10-18-62	19.9	185.1							
		11-21-62	19.7	185.3							
		12-19-62	19.5	185.5							
		1-23-63	19.6	185.4							
		2-11-63	19.5	185.5							
		3-25-63	20.1	184.9							
		4-23-63	19.9	185.1							
		5-22-63	20.7	184.3							
		6-24-63	20.1	184.9							
14S/15E-25H02 M	160.0	7-19-61	33.3	126.7	6001						
		8-21-61	33.9	126.1							
		9-18-61	31.0	129.0							
		10-23-61	30.0	130.0							
		11-21-61	24.5	135.5							
		12-18-61	21.1	138.9							
		1-17-62	19.5	140.5							
FRESNO SLOUGH AREA											
5-22.17											
14S/16E-03C01 M	180.0	3-06-62	26.5	153.5	6001	14S/16E-08D01 M	165.0	7-19-61	35.2	129.8	6001
		8-23-62	42.4	137.6				8-21-61	□		
		9-18-62	38.7	141.3				9-18-61	29.1	135.9	
		10-16-62	35.1	144.9				10-23-61	28.1	136.9	
		10-23-62	41.0	139.0				11-21-61	25.2	139.8	
		11-21-62	32.4	147.6				12-18-61	21.0	144.0	
		12-19-62	31.7	148.3				1-16-62	19.9	145.1	
		1-23-63	29.4	150.6				2-27-62	19.8	145.2	
		2-27-63	28.8	151.2				3-20-62	19.1	145.9	
		3-25-63	34.1	145.9				4-23-62	□		
		4-22-63	34.4	145.6				5-21-62	30.6	134.4	
		5-22-63	38.3	141.7				6-18-62	30.3	134.7	
		6-24-63	41.8	138.2				7-23-62	34.2	130.8	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA					
FRESNO SLOUGH AREA										
14S/16E-08D01 M CONT.	165.0	8-23-62	35.1	129.9	6001					
		9-18-62	33.8	131.2						
		10-16-62	29.6	135.4						
		11-21-62	24.7	140.3						
		12-19-62	23.1	141.9						
		1-23-63	21.6	143.4						
		2-26-63	21.1	143.9						
		3-25-63	26.8	138.2						
		4-22-63	26.5	138.5						
		5-22-63	28.0	137.0						
		6-24-63	34.1	130.9						
		7-19-61	36.6	143.4						
8-21-61	37.3	142.7								
9-18-61	37.7	142.3								
10-23-61	39.9	140.1								
11-21-61	38.7	141.3								
12-18-61	37.9	142.1								
1-17-62	37.0	143.0								
2-26-62	37.1	142.9								
3-20-62	37.4	142.6								
4-23-62	38.0	142.0								
5-21-62	39.7	140.3								
6-18-62	40.0	140.0								
7-23-62	41.1	138.9								
8-22-62	42.2	137.8								
9-18-62	41.9	138.1								
10-16-62	41.9	138.1								
11-21-62	41.2	138.8								
12-19-62	41.0	139.0								
1-23-63	39.6	140.4								
2-27-63	40.0	140.0								
3-25-63	40.0	140.0								
4-22-63	#									
5-01-63	#									
5-22-17										
FRESNO SLOUGH AREA										
14S/16E-22N01 M	167.0	10-19-62	21.9	145.1	6001					
		2-19-63	19.3	147.7						
		10-23-62	89.9	121.1		6001				
		2-25-63	78.4	132.6						
		10-22-62	#				6001			
		10-23-62	29.6	141.4						
		2-08-63	29.2	141.8						
		FRESNO SLOUGH AREA								
		15S/16E-12C03 M	171.0	7-20-61				20.2	150.8	6001
				8-21-61				17.9	153.1	
				9-19-61				15.9	155.1	
				10-23-61				17.6	153.4	
11-20-61	17.5			153.5						
12-19-61	18.7			152.3						
1-17-62	19.3			151.7						
2-27-62	19.9			151.1						
3-20-62	20.8			150.2						
4-23-62	20.5			150.5						
5-21-62	21.8			149.2						
6-18-62	22.3			148.7						
7-24-62	22.3	148.7								
8-22-62	22.5	148.5								
9-18-62	22.7	148.3								
10-16-62	22.1	148.9								
11-21-62	22.3	148.7								
12-19-62	22.6	148.4								
1-23-63	23.1	147.9								
2-25-63	23.9	147.1								
3-25-63	24.1	146.9								
4-23-63	23.7	147.3								
5-22-63	24.3	146.7								
6-24-63	25.4	145.6								
5-22-17										
FRESNO SLOUGH AREA										
15S/16E-17L01 M	165.0	7-18-61	33.2	131.8	5000					
		8-21-61	33.0	132.0						
		9-18-61	31.7	133.3						
		10-16-61	31.5	133.5						
		11-13-61	32.0	133.0						
		12-18-61	30.7	134.3						
		1-15-62	31.2	133.8						
		2-19-62	31.3	133.7						
		3-12-62	31.5	133.5						
		4-09-62	32.3	132.7						
		5-14-62	32.4	132.6						
		6-18-62	34.8	130.2						
7-16-62	33.6	131.4								
8-06-62	34.9	130.1								
9-18-62	34.5	130.5								
10-21-62	32.4	132.6								
11-24-62	32.2	132.8								
12-21-62	36.7	128.3								
1-23-63	32.5	132.5								
2-18-63	32.1	132.9								

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO SLOUGH AREA					
155/16E-17L01 M	165.0	3-19-63	32.7	132.3	5000
CONT.		4-21-63	33.1	131.9	6001
		5-20-63	34.3	130.7	
		6-17-63	□		
		10-22-62	89.5	97.5	
155/17E-22R01 M	187.0	2-08-63	75.8	113.2	6001
155/17E-34L02 M	182.0	10-19-62	□		6001
155/17E-35N02 M	185.0	10-20-62	#		6001
		7-20-61	91.0	94.0	
		8-22-61	84.7	100.3	
		9-19-61	89.0	96.0	
		10-23-61	78.9	106.1	
		11-20-61	75.8	109.2	
		12-19-61	72.7	112.3	
		1-17-62	70.3	114.7	
		1-23-62	□		
		2-27-62	75.0	110.0	
		3-20-62	85.0	100.0	
		4-23-62	77.4	107.6	
		5-21-62	89.7*	95.3	
		6-18-62	90.7	94.3	
155/18E-16G01 M	205.8	7-24-62	95.7	89.3	6001
		8-22-62	97.6	87.4	
		9-18-62	94.4	90.2	
		10-18-62	84.4	100.6	
		11-21-62	79.7	105.3	
		12-19-62	79.9	105.1	
		2-15-63	80.5	104.5	
		3-23-63	93.0	95.0	
		4-23-63	81.4	105.6	
		5-22-63	94.7	90.3	
		6-23-63	95.1	85.9	
		7-20-61	□		
		8-22-61	□		
		9-18-61	□		
155/18E-07A02 M	204.0	10-23-61	84.6	119.4	6001
		11-20-61	82.4	121.6	
		12-19-61	80.2	123.8	
		1-17-62	78.3	125.7	
		2-27-62	76.7	127.3	
		3-20-62	75.8	128.2	
		4-23-62	80.5	123.5	
		5-21-62	88.4	138.9	
		6-18-62	79.5	124.5	
		7-24-62	84.3	119.7	
		8-23-62	87.2	116.8	
		9-18-62	□		
		10-16-62	□		
		11-21-62	89.0	115.0	
155/19E-29C01 M	227.3	12-19-62	86.3	117.7	6001
		1-23-63	□		
		2-13-63	83.4	120.6	
		3-25-63	□		
		4-23-63	86.5	117.5	
		5-22-63	88.4	115.6	
		6-25-63	□		
		10-23-62	86.1	119.7	
		2-12-63	83.1	122.7	
		2-19-63	82.8	123.0	
		7-29-61	91.9	135.4	
		8-29-61	94.7	132.6	
		10-30-61	88.4	139.9	
		12-02-61	88.2	139.1	
155/19E-29C01 M	227.3	12-29-61	84.8	142.5	5631
		1-30-62	83.5	143.8	
		2-27-62	82.7	144.6	
		4-11-62	88.1	139.2	
		5-01-62	104.4	122.9	
		5-29-62	104.0	123.3	
		7-02-62	95.3	131.0	
		7-26-62	95.7	131.6	
		8-29-62	98.4	128.9	
		9-26-62	96.7	130.6	
		10-25-62	108.1	119.2	
		11-29-62	125.2	102.1	
		12-29-62	DRY		
		1-31-63	DRY		
165/17E-23N01 M	189.0	2-26-63	DRY		6001
		3-28-63	DRY		
		4-29-63	DRY		
		5-29-63	DRY		
		6-26-63	DRY		
		10-18-62	102.8	86.2	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
FRESNO SLOUGH AREA					
16S/17E-23N01 M	189.0	2-13-63	□		6001
CONT.					
16S/18E-10A01 M	205.0	7-24-61	77.5	127.5	5050
		8-30-61	76.6	128.4	
		9-27-61	79.4	125.6	
		10-31-61	75.8	129.2	
		11-29-61	75.8	129.2	
		12-28-61	75.2	129.8	
		1-26-62	75.3	129.7	
		2-22-62	75.0	130.0	
		3-30-62	74.7	130.3	
		4-27-62	75.7	129.3	
		5-31-62	75.1	129.9	
		7-02-62	78.9	126.1	
		8-03-62	84.1	120.9	
		8-29-62	84.7	120.3	
		9-27-62	82.3	122.7	
		11-05-62	81.1	123.9	
		12-04-62	81.5	123.5	
		12-28-62	81.1	123.9	
		1-25-63	82.1	122.9	
		3-04-63	80.9	124.1	
		3-29-63	82.8	122.2	
		4-29-63	81.4	123.6	
		5-31-63	84.5	120.5	
		6-28-63	□		
16S/18E-27C01 M	198.0	2-11-63	84.1	113.9	5000
		2-21-63	82.2	115.8	5050
16S/18E-31Q02 M	191.0	7-02-62	101.8	79.0	5050
		8-03-62	118.0	83.2	
		8-29-62	107.6	83.4	
		9-27-62	97.7	93.3	
		11-05-62	98.5	92.5	
		12-04-62	97.0	94.0	
		12-28-62	98.9	96.1	
		1-25-63	98.8	92.2	
		3-04-63	101.8	83.4	
		3-29-63	111.3	79.7	
		4-29-63	100.2	90.8	
		5-31-63	105.4	85.6	
		6-28-63	107.9	83.1	
16S/19E-34P01 M	220.0	7-24-61	□		5050
FRESNO SLOUGH AREA					
16S/19E-34P01 M	220.0	8-29-61	□		5050
CONT.					
		9-27-61	82.8		
		10-31-61	□		
		11-29-61	90.6	129.4	
		12-28-61	78.6	141.4	
		1-26-62	78.6	153.2	
		3-05-62	71.6	148.4	
		3-30-62	80.9	139.1	
		4-27-62	81.2	138.8	
		5-31-62	84.6	135.4	
		7-02-62	□		
		8-03-62	□		
		8-29-62	76.0	144.0	
		9-27-62	87.3	132.7	
		11-05-62	83.0	137.0	
		12-04-62	93.0	127.0	
		12-28-62	88.2		
		1-25-63	88.2	131.8	
		3-04-63	83.8	136.2	
		4-29-63	82.9	137.1	
		4-29-63	90.5	129.5	
		5-31-63	100.3	119.7	
		6-28-63	90.9	129.1	
17S/17E-12H01 M	199.0	2-20-63	137.8	61.2	5050
17S/18E-23A02 M	199.5	2-20-63	66.6	132.9	5050
CONSOLIDATED IRRIGATION DISTRICT					
14S/22E-22N01 M	355.7	7-05-62	36.8	318.9	4636
		8-04-62	35.8	319.9	
		9-05-62	35.0	320.7	
		10-05-62	35.9	319.8	
		11-05-62	35.4	320.3	
		12-04-62	35.4	320.3	
		1-04-63	35.8	319.9	
		2-06-63	36.1	319.6	
		3-04-63	35.9	319.8	
		4-09-63	36.2	319.5	
		5-02-63	36.2	319.5	
		6-04-63	36.5	319.2	
15S/19E-24N01 M	246.6	7-05-62	75.0	171.6	4636
		8-04-62	77.7	168.9	

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
CONSOLIDATED IRRIGATION DISTRICT 5-22.18					
15S/19E-24N01 M	246.6	9-05-62	77.0	169.6	4636
CONT.		10-05-62	75.1	171.5	
		11-05-62	76.1	170.5	
		12-04-62	75.4	171.2	
		1-04-63	73.6	173.0	
		2-06-63	71.5	175.1	
		3-04-63	70.4	176.2	
		4-09-63	81.0	165.6	
15S/20E-28A01 M	264.8	5-02-63	75.8	170.8	4636
CONT.		6-04-63	75.8	170.8	
		7-05-62	56.0	208.8	
		8-04-62	56.2	208.6	
		9-05-62	53.1	211.7	
		10-05-62	51.8	213.0	
		11-05-62	52.6	212.0	
		12-04-62	52.8	212.0	
15S/21E-15D01 M	301.2	1-04-63	52.8	212.0	4636
CONT.		2-06-63	51.6	213.2	
		3-04-63	51.6	213.2	
		4-09-63	56.0	208.8	
		5-02-63	53.2	211.6	
		6-04-63	55.5	209.3	
		7-05-62	36.5	264.7	
		8-04-62	36.9	264.3	
15S/22E-24N01 M	246.6	9-05-62	36.6	264.6	4636
CONT.		10-05-62	36.1	265.1	
		11-05-62	35.3	265.9	
		12-04-62	35.9	265.3	
		1-04-63	34.9	266.3	
		2-06-63	34.7	266.5	
		3-04-63	34.4	266.8	
		4-09-63	34.7	266.5	
15S/22E-16A01 M	337.0	5-02-63	35.5	265.7	4636
CONT.		6-04-63	35.6	265.6	
		7-05-62	36.9	300.1	
		8-04-62	36.3	300.7	
		9-05-62	35.4	301.6	
		10-05-62	35.3	301.7	
		11-05-62	35.7	301.3	
		12-04-62	36.0	301.0	
15S/22E-22N01 M	247.7	1-04-63	36.1	300.9	4636
CONT.		2-06-63	36.6	300.4	
		3-04-63	36.3	301.7	
		4-09-63	35.7	301.3	
		5-02-63	35.5	265.7	
		6-04-63	35.6	265.6	
		7-05-62	36.9	300.1	
		8-04-62	36.3	300.7	
15S/22E-29D01 M	321.9	9-05-62	39.3	282.6	4636
CONT.		10-05-62	39.3	282.6	
		11-05-62	39.3	282.6	
		12-04-62	39.8	282.1	
		1-04-63	39.8	282.1	
		2-06-63	40.0	281.9	
		3-04-63	40.1	281.8	
		4-09-63	40.8	281.1	
16S/19E-14A01 M	235.5	5-02-63	41.2	280.7	4636
CONT.		6-04-63	41.1	280.8	
		7-05-62	83.0	152.5	
		8-04-62	84.8	150.7	
		9-05-62	83.6	151.9	
		10-05-62	79.1	156.4	
		11-05-62	77.5	158.0	
		12-04-62	76.5	159.0	
16S/20E-22N01 M	247.7	1-04-63	75.8	159.7	4636
CONT.		2-06-63	74.5	161.0	
		3-04-63	73.8	161.7	
		4-09-63	81.2	154.3	
		5-02-63	78.5	157.0	
		6-04-63	81.4	154.1	
		7-05-62	63.4	184.3	
		8-04-62	63.6	184.1	
16S/21E-22N01 M	271.0	9-05-62	64.2	183.5	4636
CONT.		10-05-62	62.6	185.1	
		11-05-62	62.1	185.6	
		12-04-62	60.7	187.0	
		1-04-63	59.7	188.0	
		2-06-63	59.4	188.3	
		3-04-63	58.9	188.8	
		4-09-63	61.7	186.0	
16S/22E-22N01 M	271.0	5-02-63	64.6	183.1	4636
CONT.		6-04-63	64.5	183.2	
		7-05-62	54.1	216.9	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
CONSOLIDATED IRRIGATION DISTRICT					
5-22.18					
16S/21E-22N01 M CONT.	271.0	8-04-62	54.9	216.1	4636
		9-05-62	53.4	217.6	
		10-05-62	52.6	218.4	
		11-05-62	50.5	220.5	
		12-04-62	49.8	221.2	
		1-04-63	49.8	221.2	
		2-06-63	49.6	221.4	
		3-04-63	48.2	222.8	
		4-09-63	49.9	221.1	
		5-02-63	48.6	222.4	
	6-04-63	51.1	219.9		
6S/22E-23R01 M CONT.	297.5	7-05-62	33.3	264.2	4636
		8-04-62	32.3	265.2	
		9-05-62	31.9	265.6	
		10-05-62	32.0	265.5	
		11-05-62	31.9	265.6	
		12-04-62	31.8	265.7	
		1-04-63	31.8	265.7	
		2-06-63	31.5	266.0	
		3-04-63	31.4	266.1	
		4-09-63	31.3	266.2	
	5-02-63	31.3	266.2		
	6-04-63	31.3	266.2		
17S/22E-03C01 M CONT.	286.0	7-05-62	24.8	261.2	4636
		8-04-62	26.1	259.9	
		9-05-62	26.0	260.0	
		10-05-62	23.8	262.2	
		11-05-62	28.6	257.4	
		12-04-62	29.1	256.9	
		1-04-63	28.9	257.1	
		2-06-63	29.1	256.9	
		3-04-63	28.6	257.4	
		4-09-63	31.6	254.4	
	5-02-63	29.2	256.8		
	6-04-63	28.2	257.8		
ALTA IRRIGATION DISTRICT					
5-22.19					
14S/23E-36R01 M CONT.	391.0	7-30-62	54.0	337.0	4637
		8-28-62	□	326.2	
		9-26-62	□	328.5	
		10-27-62	64.8		
		11-27-62	62.5		
		7-30-62	63.2	327.8	
		1-28-63	66.2	324.8	
		2-27-63	64.6	326.4	
		3-28-63	64.3	326.7	
		4-27-63	63.9	327.1	
14S/24E-31P01 M CONT.	391.0	7-30-62	46.8	348.2	4637
		8-28-62	49.8	345.2	
		9-26-62	59.8	335.2	
		10-27-62	60.0	335.0	
		11-27-62	64.2	330.8	
		12-28-62	62.3	332.7	
		1-29-63	63.3	331.7	
		2-27-63	62.0	333.0	
		3-28-63	61.6	333.4	
		4-27-63	61.1	333.9	
15S/23E-23A02 M CONT.	358.0	7-30-62	57.0	301.0	4637
		8-28-62	58.6	299.4	
		9-26-62	59.4	298.6	
		10-27-62	57.9	300.1	
		11-27-62	58.4	299.6	
		12-28-62	56.7	301.3	
		1-28-63	57.8	300.2	
		2-27-63	56.5	301.5	
		3-27-63	56.8	301.2	
		4-27-63	56.5	301.5	
15S/24E-22D01 M CONT.	388.0	7-27-62	41.6	346.4	4637
		8-30-62	47.8	340.2	
		9-28-62	54.2	333.8	
		10-30-62	55.8	332.2	
		11-29-62	58.0	330.0	
		12-31-62	59.1	328.9	
		1-28-63	60.2	327.8	
		3-01-63	56.0	332.0	
		3-30-63	55.9	332.1	
		5-02-63	52.5	335.5	
	5-30-63	49.4	338.6		

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
ALTA IRRIGATION DISTRICT					
155/24E-22D01 M	388.0	6-27-63	42.7	345.3	4637
165/23E-23E01 M	314.0	7-31-62	35.9	278.1	4637
		8-29-62	36.1	277.9	
		9-26-62	33.7	280.3	
		10-29-62	33.5	280.5	
		11-28-62	33.4	280.6	
		12-29-62	33.5	280.5	
		1-28-63	33.7	280.3	
		2-28-63	33.6	280.4	
		3-28-63	35.8	278.2	
		5-01-63	34.8	279.2	
		5-29-63	34.8	279.2	
		6-25-63	35.0	279.0	
165/24E-21J01 M	336.0	7-28-62	41.8	294.2	4637
		8-30-62	44.3	291.7	
		9-25-62	43.4	292.6	
		10-26-62	41.8	294.2	
		11-26-62	42.3	293.7	
		12-27-62	43.8	292.2	
		1-28-63	46.0	290.0	
		2-26-63	42.7	293.3	
		3-27-63	46.0	290.0	
		4-27-63	46.0	290.0	
		5-28-63	43.9	294.1	
		6-25-63	41.5	294.5	
165/25E-29A01 M	364.0	7-28-62	58.7	305.3	4637
		8-30-62	66.7	297.3	
		9-25-62	□	□	
		10-26-62	62.9	301.1	
		11-26-62	□	□	
		12-29-62	□	□	
		1-28-63	□	□	
		2-26-63	60.0	304.0	
		3-27-63	64.3	299.7	
		4-27-63	63.8	300.2	
		5-28-63	58.2	305.8	
		6-25-63	55.6	308.4	
175/22E-25A01 M	275.0	7-28-61	□	229.8	4637
		8-30-61	45.2	229.8	
		9-28-61	39.7	235.3	
		10-28-61	36.4	238.6	
ALTA IRRIGATION DISTRICT					
175/22E-25A01 M	275.0	11-27-61	35.6	239.4	4637
		12-28-61	33.2	241.8	
		1-27-62	32.4	242.6	
		2-26-62	31.8	243.2	
		3-28-62	31.6	243.4	
		4-30-62	□	□	
		5-28-62	39.4	235.6	
		6-29-62	39.8	235.2	
		7-28-62	□	□	
		8-29-62	□	□	
		9-27-62	41.5	233.5	
		10-29-62	37.4	237.6	
		11-28-62	33.8	241.2	
		12-28-62	33.0	242.0	
		1-28-63	32.6	242.4	
		2-28-63	32.6	242.4	
		3-29-63	35.8	239.2	
		5-01-63	□	□	
		5-31-63	37.4	237.6	
		6-27-63	□	□	
175/22E-25J01 M	275.0	7-28-61	34.4	240.6	4637
		8-30-61	34.9	240.1	
		9-28-61	34.1	240.9	
		10-28-61	33.0	242.0	
		11-27-61	32.9	242.1	
		12-28-61	32.4	242.6	
		1-27-62	32.0	243.0	
		2-26-62	31.3	243.7	
		3-28-62	31.0	244.0	
		4-30-62	32.7	242.3	
		5-31-62	32.5	242.5	
		6-29-62	33.8	241.2	
		7-31-62	35.3	239.7	
		8-29-62	35.8	239.2	
		9-27-62	34.1	240.9	
		10-29-62	33.1	241.9	
		11-28-62	32.6	242.4	
		12-28-62	32.2	242.8	
		1-28-63	32.2	242.8	
		2-28-63	32.4	242.6	
		3-29-63	34.7	240.3	
		5-01-63	33.9	241.1	
		5-31-63	34.5	240.5	
		6-27-63	35.7	239.3	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
ALTA IRRIGATION DISTRICT					
17S/24E-15A01 M	303.0	7-25-61	45.0	258.0	6001
		9-01-61	46.2	256.8	
		9-19-61	44.0	259.0	
		10-24-61	44.5	258.5	
		11-27-61	35.3	268.7	
		12-20-61	33.6	269.4	
		1-23-62	32.0	271.0	
		3-01-62	31.4	271.6	
		3-27-62	29.0	274.0	
		4-25-62	38.5	264.5	
		5-22-62	40.7	262.3	
		6-21-62	45.6	257.4	
		7-24-62	48.5	254.5	
		8-21-62	47.5	255.5	
		9-19-62	48.9	254.1	
		10-16-62	48.3	254.7	
		11-20-62	40.0	265.0	
		12-17-62	37.1	265.9	
		1-22-63	38.7	264.3	
		2-25-63	33.5	269.5	
		3-25-63	#		
17S/25E-10C01 M	335.0	7-26-62	48.0	287.0	4637
		8-27-62	50.0	285.0	
		9-25-62	51.1	283.9	
		10-26-62	51.9	283.1	
		11-26-62	51.6	283.4	
		12-27-62	51.6	283.4	
		1-28-63	52.5	282.5	
		2-26-63	51.1	283.9	
		3-27-63	50.9	284.1	
		4-25-63	49.9	285.1	
		5-29-63	49.6	285.4	
		6-26-63	47.5	287.5	
17S/25E-18R01 M	321.0	7-26-62	69.7	251.3	4637
		8-27-62	71.4	249.6	
		9-25-62	71.0	250.0	
		10-26-62	68.0	253.0	
		11-26-62	66.5	254.5	
		12-27-62	65.3	255.7	
		1-28-63	65.3	255.7	
		2-26-63	64.4	256.6	
		3-27-63	66.5	254.5	
		4-25-63	67.3	253.7	
ALTA IRRIGATION DISTRICT					
17S/19E-14J02 M	220.0	2-18-63	63.4	156.6	5000
		2-20-63	□		5050
17S/20E-20D01 M	223.0	7-24-61	93.0*	130.0	5050
		8-30-61	71.4	151.6	
		9-27-61	94.4*	128.6	
		11-01-61	89.7*	133.3	
		11-29-61	59.2	163.8	
		12-28-61	57.5	165.5	
		1-26-62	56.6	166.4	
		3-05-62	55.5	167.5	
		3-30-62	91.7*	131.3	
		4-27-62	61.1	161.9	
		5-31-62	59.3	163.7	
		7-02-62	60.1	162.9	
		8-03-62	63.6	159.4	
		8-29-62	□		
		9-27-62	65.7	157.3	
		11-05-62	59.9	163.1	
		12-04-62	53.9	169.1	
		12-28-62	55.9	167.1	
		1-25-63	56.0	167.0	
		3-04-63	86.8*	136.2	
		3-29-63	62.5	160.5	
		4-29-63	61.4	161.6	
		5-31-63	64.9	158.1	
		6-28-63	91.2*	131.8	
17S/21E-11G01 M	257.2	7-02-62	45.6	211.6	5050
		8-03-62	46.0	211.2	
		8-29-62	□		
		9-27-62	42.0	215.2	
		11-05-62	40.9	216.3	
		12-04-62	40.0	217.2	
		12-28-62	39.2	218.0	
		1-25-63	□		
		3-04-63	□		
		3-28-63	42.0	215.2	
		4-29-63	37.4	219.8	
		5-31-63	38.9	218.3	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LOWER KINGS RIVER AREA					
5-22-20					
175/21E-11G01 M	257.2	6-28-63	□		5050
185/18E-12N02 M	221.0	7-02-62 8-03-62 8-29-62 8-30-62	DRY DRY DRY #		5050
185/19E-26E01 M	210.0	2-20-63	6.2	203.8	5050
185/20E-16A01 M	230.0	2-21-63	10.4	219.6	5050
185/21E-10R01 M	254.0	7-02-62 8-03-62 8-29-62 9-27-62 11-05-62 12-04-62 12-28-62 1-25-63 2-14-63 3-04-63 3-28-63 4-29-63 5-31-63 6-28-63	66.8 75.6 78.6 68.3 63.1 58.2 57.3 63.0 58.6 □ 73.2 64.4 68.4 75.7	187.2 178.4 175.4 185.7 190.9 195.8 196.7 191.0 195.4 180.8 189.6 185.6 178.3	5050
195/19E-25A01 M	208.0	2-21-63	4.5	203.5	5050
195/20E-21A01 M	217.0	7-02-62 8-03-62 8-30-62 9-27-62 11-05-62 12-04-62 12-28-62 1-25-63 2-21-63 3-04-63 3-29-63 4-29-63 5-31-63 6-28-63	70.5 75.9 77.5 78.6 73.7 71.3 69.8 76.5 71.1 69.1 73.8 75.6 76.9 77.1	146.5 141.1 139.5 138.4 143.3 145.3 147.2 140.5 145.9 147.9 143.2 141.4 140.1 139.9	5050
205/20E-09C01 M	206.0	2-20-63	4.9	201.1	5050
205/21E-03A01 M	220.0	2-19-63	18.2	201.8	6001

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LOWER KINGS RIVER AREA					
5-22-20					
205/22E-19M01 M	211.0	7-24-61 8-30-61 9-27-61 11-01-61 11-29-61 12-28-61 1-26-62 3-06-62 3-30-62 4-27-62 5-31-62 7-02-62 8-03-62 8-30-62 9-27-62 11-05-62 12-04-62 12-28-62 1-25-63 3-04-63 3-29-63 4-29-63 5-31-63 6-28-63	30.7 32.5 31.5 34.5 31.1 □ 30.7 29.1 30.2 29.2 30.3 30.1 30.5 30.4 31.2 30.4 30.1 27.0 29.9 30.8 30.3 30.6 30.2 30.2	180.3 178.5 179.5 176.5 179.9 180.3 181.9 180.8 181.8 180.7 180.9 180.5 180.6 180.8 180.9 184.0 181.1 180.2 180.7 180.4 180.8 180.8	5050
ORANGE COVE IRRIGATION DISTRICT					
5-22-21					
145/24E-20B01 M	443.0	7-25-62 8-21-62 9-19-62 10-16-62 11-20-62 12-17-62 2-04-63 3-05-63 4-03-63 5-02-63 6-03-63	15.3 13.2 12.8 13.8 15.3 16.4 17.5 16.8 16.3 15.5 15.8	427.7 429.8 430.2 429.2 427.7 426.6 425.5 426.2 426.7 427.5 429.2	6001
145/25E-30D01 M	510.0	10-10-62 2-07-63 2-12-63	32.3 34.3 31.8	477.7 477.7 476.2	6001
155/24E-14D01 M	405.0	7-25-62 8-21-62	37.1 36.0	367.9 369.0	6001

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
ORANGE COVE IRRIGATION DISTRICT					
5-22.21					
155/24E-14D01 M	405.0	9-19-62	33.8	371.2	6001
CONT.		10-16-62	32.8	372.2	
		11-20-62	35.1	370.9	
		12-17-62	35.7	372.3	
		2-04-63	33.1	371.9	
		3-05-63	31.9	373.1	
		4-03-63	31.1	373.9	
		5-02-63	30.1	374.9	
		6-04-63	31.5	373.5	
		7-25-62	16.5	398.5	6001
		8-21-62	17.6	397.4	
165/25E-04C02 M	415.0	9-19-62	16.8	398.2	
		10-16-62	16.7	395.3	
		11-20-62	17.3	397.7	
		12-17-62	17.4	397.6	
		2-04-63	18.6	396.4	
		3-05-63	18.1	395.9	
		4-04-63	18.0	397.8	
		5-03-63	17.2	397.8	
		6-05-63	16.6	398.4	
		7-24-62	2.3	402.7	6001
		8-20-62	2.6	402.4	
165/26E-32R01 M	405.0	9-19-62	2.3	402.7	
		10-16-62	2.3	402.7	
		11-20-62	2.3	402.7	
		12-17-62	3.0	402.0	
		1-22-63	2.6	402.4	
		2-05-63	.8	404.2	
		2-25-63	1.0	404.0	
		3-26-63	1.2	403.8	
		4-22-63	.8	404.2	
		5-21-63	1.3	403.7	
		6-28-63	1.9	403.1	
175/26E-07R01 M	364.0	7-25-62	24.0	340.0	6001
		8-20-62	30.7	333.3	
		9-19-62	24.0	340.0	
		10-16-62	21.7	342.3	
		11-20-62	21.1	342.9	
		12-17-62	21.0	343.0	
		1-22-63	25.8	338.2	
		7-25-61	83.5	265.5	
		8-31-61	84.1	264.9	
		9-29-61	84.3	264.7	
		10-24-61	84.8	264.2	
STONE CORRAL IRRIGATION DISTRICT					
5-22.22					
175/26E-07R01 M	364.0	2-25-63	22.2	341.8	6001
CONT.		3-26-63	20.3	343.7	
		4-22-63	19.8	344.2	
		5-21-63	19.4	344.6	
		6-28-63	18.3	345.7	
IVANHOE IRRIGATION DISTRICT					
5-22.23					
175/25E-27R01 M	350.0	8-01-61	93.0	257.0	6001
		8-31-61	105.0	245.0	
		9-29-61	103.9	245.1	
		10-31-61	90.5	259.5	
		12-01-61	89.4	260.6	
		1-02-62	87.6	262.4	
		1-31-62	86.2	263.8	
		2-28-62	86.2	263.8	
		4-05-62	85.4	264.6	
		5-01-62	92.0	258.0	
		5-31-62	95.0	259.0	
STONE CORRAL IRRIGATION DISTRICT					
5-22.22					
165/26E-32R01 M	405.0	7-24-62	2.3	402.7	6001
		8-20-62	2.6	402.4	
		9-19-62	2.3	402.7	
		10-16-62	2.3	402.7	
		11-20-62	2.3	402.7	
		12-17-62	3.0	402.0	
		1-22-63	2.6	402.4	
		2-05-63	.8	404.2	
		2-25-63	1.0	404.0	
		3-26-63	1.2	403.8	
		4-22-63	.8	404.2	
STONE CORRAL IRRIGATION DISTRICT					
5-22.22					
165/26E-32R01 M	405.0	7-24-62	2.3	402.7	6001
		8-20-62	2.6	402.4	
		9-19-62	2.3	402.7	
		10-16-62	2.3	402.7	
		11-20-62	2.3	402.7	
		12-17-62	3.0	402.0	
		1-22-63	2.6	402.4	
		2-05-63	.8	404.2	
		2-25-63	1.0	404.0	
		3-26-63	1.2	403.8	
		4-22-63	.8	404.2	
STONE CORRAL IRRIGATION DISTRICT					
5-22.22					
165/26E-32R01 M	405.0	7-24-62	2.3	402.7	6001
		8-20-62	2.6	402.4	
		9-19-62	2.3	402.7	
		10-16-62	2.3	402.7	
		11-20-62	2.3	402.7	
		12-17-62	3.0	402.0	
		1-22-63	2.6	402.4	
		2-05-63	.8	404.2	
		2-25-63	1.0	404.0	
		3-26-63	1.2	403.8	
		4-22-63	.8	404.2	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
IVANHOE IRRIGATION DISTRICT					
5-22.23					
17S/25E-35M01 M	349.0	5-23-62	83.2	265.8	6001
CONT.		6-21-62	81.7	267.3	
		7-25-62	82.9	266.1	
		8-21-62	84.0	265.0	
		9-19-62	84.6	264.4	
		10-16-62	84.7	264.3	
		11-20-62	85.0	264.0	
		12-17-62	87.7	261.3	
		1-03-63	83.7	265.3	
		2-04-63	83.3	265.7	
		3-04-63	82.5	266.5	
		4-01-63	81.8	267.2	
		5-01-63	81.2	267.8	
		6-06-63			
		8-01-61	93.9	271.1	6001
		8-31-61	96.9	268.1	
		9-29-61	92.9	272.1	
		10-31-61	89.0	276.0	
		1-01-61	86.9	278.1	
		1-02-62	84.7	280.3	
		1-31-62	83.5	281.5	
		2-28-62	86.5	278.5	
		4-05-62	78.3	286.7	
		5-01-62	78.8	286.2	
		5-31-62	78.5	286.5	
		6-10-62	79.5	285.5	
		8-01-62	79.8	285.2	
		8-31-62	79.4	285.6	
		10-03-62	79.5	285.5	
		10-31-62	78.5	286.5	
		11-05-62	80.3	284.7	
		1-03-63	80.9	284.1	
		2-04-63	80.4	284.6	
		3-04-63	77.6	287.4	
		4-01-63	76.5	288.5	
		5-01-63	75.0	290.0	
		6-06-63	75.2	289.8	
17S/25E-36G01 M	365.0	8-01-61	93.9	321.1	6001
CONT.		8-31-61	96.9	318.1	
		9-29-61	92.9	322.1	
		10-31-61	89.0	326.0	
		1-01-61	86.9	328.1	
		1-02-62	84.7	330.3	
		1-31-62	83.5	331.5	
		2-28-62	86.5	328.5	
		4-05-62	78.3	336.7	
		5-01-62	78.8	336.2	
		5-31-62	78.5	336.5	
		6-10-62	79.5	335.5	
		8-01-62	79.8	335.2	
		8-31-62	79.4	335.6	
		10-03-62	79.5	335.5	
		10-31-62	78.5	336.5	
		11-05-62	80.3	334.7	
		1-03-63	80.9	334.1	
		2-04-63	80.4	334.6	
		3-04-63	77.6	337.4	
		4-01-63	76.5	338.5	
		5-01-63	75.0	340.0	
		6-06-63	75.2	339.8	
17S/26E-21E01 M	394.0	8-01-61	41.7	352.3	6001
CONT.		8-31-61	42.9	351.1	
		9-29-61	42.0	352.0	
		10-31-61	36.5	357.5	
		1-01-61	36.1	357.9	
		1-02-62	36.2	357.8	
		8-01-61	41.7	352.3	
		8-31-61	42.9	351.1	
		9-29-61	42.0	352.0	
		10-31-61	36.5	357.5	
		1-01-61	36.1	357.9	
		1-02-62	36.2	357.8	
		2-28-62	77.2	307.8	
		4-05-62	76.0	309.0	
		5-02-62	75.9	309.1	
		6-01-62	76.6	308.4	
		6-10-62	75.0	310.0	
		8-01-62	75.2	309.8	
		9-04-62	74.4	310.6	
		10-03-62	74.1	310.9	
		10-31-62	73.7	311.3	
		12-06-62	74.9	310.1	
		1-04-63	74.2	310.8	
		2-05-63	73.8	311.2	
		3-04-63	73.0	312.0	
		4-02-63	72.1	312.9	
		5-02-63	71.0	314.0	
		6-10-63	70.4	314.6	
17S/26E-34D01 M	416.0	8-01-61	82.9	333.1	6001
CONT.		9-21-61	83.0	331.0	
		9-21-61	83.2	332.8	
		10-31-61	81.3	334.7	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
IVANHOE IRRIGATION DISTRICT					
5-22-23					
17S/24E-34001 M	416.0	12-01-61	79+2	336.8	6001
CONT.		1-02-62	76+9	339.1	
		1-31-62	76+0	340.0	
		2-28-62	73+9	342.1	
		4-05-62	70+0	346.0	
		5-01-62	70+0	346.0	
		6-01-62	70+5	345.5	
		6-10-62	71+5	344.5	
		8-01-62	70+4	345.6	
		9-04-62	69+3	346.7	
		10-03-62	67+3	348.7	
		10-31-62	67+2	348.8	
		12-06-62	66+3	349.7	
		12-04-63	66+4	349.6	
		2-05-63	68+0	348.0	
		3-04-63	64+8	351.2	
		4-02-63	62+8	353.2	
		5-02-63	60+0	356.0	
		6-10-63	65+5	350+5	
8S/25E-12001 M	363.0	10-12-62	66+0	297.0	6001
CONT.		2-13-63	46+7	316.3	5050
		2-23-63	55+8	307.2	6001
KAMEAH DELTA WATER CONSERV DIST					
5-22-24					
17S/24E-34001 M	297.5	7-25-61	50+7	246.8	6001
CONT.		8-31-61	54+0	243.5	
		9-16-61	55+1	242.4	
		10-24-61	51+9	245.6	
		11-27-61	53+1	248.4	
		12-20-61	48+1	248.4	
		1-23-62	48+3	248.2	
		2-28-62	46+9	250.6	
		3-27-62	46+3	251.2	
		4-23-62	39+9	257.6	
		5-22-62	37+5	260.0	
		6-19-62	37+5	260.0	
		7-24-62	32+8	264.7	
		8-21-62	34+5	263.0	
		9-19-62	35+7	261.8	
		10-16-62	36+0	261.5	
		11-20-62	35+0	262.5	
		12-17-62	35+0	262.5	
		1-22-63	37+2	260+3	
KAMEAH DELTA WATER CONSERV DIST					
5-22-24					
17S/24E-34001 M	297.5	7-25-61	50+7	246.8	6001
CONT.		8-31-61	54+0	243.5	
		9-16-61	55+1	242.4	
		10-24-61	51+9	245.6	
		11-27-61	53+1	248.4	
		12-20-61	48+1	248.4	
		1-23-62	48+3	248.2	
		2-28-62	46+9	250.6	
		3-27-62	46+3	251.2	
		4-23-62	39+9	257.6	
		5-22-62	37+5	260.0	
		6-19-62	37+5	260.0	
		7-24-62	32+8	264.7	
		8-21-62	34+5	263.0	
		9-19-62	35+7	261.8	
		10-16-62	36+0	261.5	
		11-20-62	35+0	262.5	
		12-17-62	35+0	262.5	
		1-22-63	37+2	260+3	
KAMEAH DELTA WATER CONSERV DIST					
5-22-24					
17S/24E-34001 M	297.5	2-25-63	35+0	262.5	6001
CONT.		3-25-63	35+5	262+0	
		4-22-63			
		5-21-63	24+9	272+6	
		6-28-63	17+6	279+9	
		7-25-61	105+7	229+3	6001
		8-31-61	107+1	227+9	
		9-19-61	102+8	232+2	
		10-24-61	96+7	238+5	
		11-27-61	101+3	233+7	
		12-18-61	87+6	247+4	
		1-22-62	85+2	249+8	
		3-01-62	83+8	251+2	
		3-28-62	84+6	250+4	
		4-26-62	86+2	248+8	
		5-23-62	89+7	245+3	
		6-21-62	95+5	239+5	
		7-25-62			
		8-21-62	99+5	235+5	
		9-19-62	105+5	229+5	
		10-16-62	102+2	232+8	
		11-20-62	109+0	226+0	
		12-17-62	109+5	225+5	
		1-22-63	102+9	232+1	
		2-25-63	94+5	240+5	
		3-25-63	102+5	232+5	
		4-22-63	97+4	237+6	
		5-21-63	113+0	222+0	
		6-28-63	104+5	230+5	
17S/26E-17P02 M	385+0	10-10-62	19+6	365+4	6001
CONT.		2-04-63	22+9	362+1	
		10-11-62	10+7	459+3	6001
17S/27E-34P01 M	470+0	2-05-63	12+8	457+2	
18S/22E-29A01 M	251+0	10-10-62	78+0	173+0	6001
CONT.		2-04-63	72+3	178+7	
		7-26-61	96+0	149+0	6001
18S/22E-36P01 M	245+0	8-31-61	99+4	145+6	
CONT.		9-20-61	99+0	146+0	
		10-25-61	97+7	147+3	
		11-28-61	94+8	150+2	

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
KAWEAH DELTA WATER CONSERV DIST					
18S/22E-36P01 M	245.0	12-20-61	92.4	152.6	6001
CONT.		1-25-62	88.9	156.1	
		2-28-62	88.5	156.5	
		3-27-62	83.4	161.6	
		4-23-62	88.8	156.2	
		5-22-62	88.1	156.9	
		6-19-62	89.4	155.6	
		7-23-62	93.2	151.8	
		8-21-62	97.4	147.6	
		9-18-62	97.9	147.1	
		10-15-62	95.8	149.2	
		11-19-62	90.7	154.3	
		12-17-62	87.1	157.9	
		1-21-63	86.5	158.5	
		2-25-63	86.0	159.0	
		3-25-63	88.2	156.8	
		4-22-63			
		5-20-63		155.8	
		6-27-63	89.2		
18S/23E-12H01 M	282.5	7-25-61	62.7	219.8	6001
		8-30-61	65.5	217.0	
		9-20-61	65.0	217.5	
		10-24-61	63.4	219.1	
		11-27-61	59.3	223.2	
		12-20-61	58.6	223.9	
		1-25-62	56.8	225.7	
		2-28-62	55.3	227.2	
		3-27-62	56.5	226.0	
		4-25-62	56.2	226.3	
		5-22-62	57.5	225.0	
		6-19-62	60.0	222.5	
		7-23-62	64.0	218.5	
		8-21-62	67.9	214.6	
		9-18-62	68.8	213.7	
		10-15-62	65.6	216.9	
		11-19-62	60.5	222.0	
		12-17-62	57.8	224.7	
		1-21-63	57.3	225.2	
		2-25-63	55.5	227.0	
		3-25-63	58.0	224.5	
		4-22-63	56.6	225.9	
		5-20-63	56.5	226.0	
		6-27-63	58.0	224.5	
18S/23E-34A01 M	271.0	2-13-63	88.2	182.8	5050
KAWEAH DELTA WATER CONSERV DIST					
18S/24E-26A01 M	312.5	10-12-62	71.2	241.3	6001
		2-18-63	69.3	243.2	
18S/25E-33F01 M	338.0	10-11-62	54.2	283.8	6001
		2-23-63			
18S/26E-27E01 M	390.0	10-12-62	26.5	363.5	6001
		2-25-63	25.1	364.9	
18S/26E-30N01 M	367.0	7-25-61	41.3	325.7	6001
		8-30-61	42.6	324.4	
		9-20-61	42.3	324.7	
		10-25-61	41.5	325.5	
		11-28-61	42.4	325.6	
		1-19-62	41.6	325.4	
		1-23-62	41.7	325.3	
		3-01-62	39.5	327.5	
		3-28-62	36.2	330.8	
		4-26-62	34.5	332.5	
		5-23-62	30.5	336.5	
		6-20-62	30.9	336.1	
		7-24-62	29.5	337.5	
		8-23-62	31.8	335.2	
		9-19-62	30.2	336.8	
		10-16-62	29.9	337.1	
		11-20-62	31.1	335.9	
		12-18-62	32.5	334.5	
		1-22-63	32.9	334.1	
		2-26-63	31.1	335.9	
		3-26-63	30.5	336.5	
		4-22-63	27.3	339.7	
		5-20-63	27.7	339.3	
		6-28-63	26.8	340.2	
19S/22E-01N02 M	245.0	2-19-63	69.8	175.2	6001
19S/22E-19A01 M	235.0	7-26-61	137.1	97.9	6001
		8-31-61	140.3	94.7	
		9-20-61	139.7	95.3	
		10-25-61	139.8	95.2	
		11-28-61	134.0	101.0	
		1-20-62	129.8	105.2	
		1-23-62	125.9	109.1	
		2-28-62	128.9	106.1	
		3-27-62	125.0	110.0	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
KAWAIAH DELTA WATER CONSERV DIST					
5-22-24					
19S/22E-19A01 M	235.0	4-23-62	121.0	114.0	6001
CONT.					
		5-22-62	118.4	116.6	
		6-19-62	116.5	118.5	
		7-23-62	102.7	132.3	
		8-21-62	99.5	135.5	
		9-19-62	100.3	134.7	
		10-15-62	98.0	137.0	
		11-19-62	96.3	138.7	
		12-17-62	92.1	142.9	
		1-21-63	90.0	145.0	
		2-25-63	90.2	144.8	
		3-25-63	95.0	140.0	
		4-22-63	91.4	143.6	
		5-20-63	90.2	144.8	
		6-27-63	89.1	145.9	
19S/22E-36E01 M	234.0	7-23-62	103.6	130.4	6001
		8-22-62	102.7	131.3	
		9-18-62	103.8	130.2	
		10-15-62	104.3	129.7	
		11-19-62	104.4	129.6	
		12-17-62	104.5	129.5	
		1-21-63	104.5	129.5	
		2-19-63	104.7	129.3	
		3-25-63	104.5	129.5	
		4-22-63	104.3	129.7	
		5-20-63	105.1	128.9	
		6-27-63	105.8	128.2	
19S/22E-07K01 M	320.0	7-25-61	60.9	259.1	6001
		8-31-61	64.0	256.0	
		9-19-61	64.8	255.2	
		10-26-61	65.0	255.0	
		11-27-61	65.3	254.7	
		12-24-61	65.2	254.8	
		1-28-62	65.5	255.8	
		3-27-62	61.2	258.5	
		4-25-62	58.7	261.3	
		5-22-62	51.0	269.0	
		7-18-62	45.8	274.2	
		8-23-62	48.3	271.7	
		9-19-62	49.2	270.8	
			48.9	271.1	
KAWAIAH DELTA WATER CONSERV DIST					
5-22-24					
19S/25E-07K01 M	320.0	10-15-62	49.3	270.7	6001
CONT.					
		11-19-62	51.8	268.2	
		12-18-62	52.9	267.1	
		1-21-63	54.2	265.8	
		2-25-63	54.4	265.6	
		3-26-63	55.6	264.4	
		4-22-63	54.8	265.2	
		5-20-63	52.1	267.9	
		6-28-63	42.9	277.1	
19S/25E-25D01 M	337.0	2-13-63	72.1	264.9	5050
19S/26E-34R02 M	341.0	7-25-61	157.5	183.5	6001
		9-01-61	157.5	196.2	
		9-20-61	144.8	211.0	
		10-25-61	150.0	211.0	
		11-29-61	124.1	225.9	
		12-19-61	117.6	223.4	
		1-23-62	116.4	224.6	
		3-01-62	104.0	237.0	
		3-28-62	123.2	217.8	
		4-25-62	126.5	214.5	
		5-23-62	126.5		
		6-20-62			
		7-24-62			
		8-23-62			
		9-19-62	111.0	230.0	
		10-16-62	119.3	221.7	
		11-20-62	119.3	227.4	
		12-18-62	113.6	238.3	
		1-22-63	102.7	238.3	
		2-26-63	93.4	247.6	
		3-26-63	93.4	247.6	
		4-22-63	93.4	247.6	
		5-20-63	120.2	220.8	
		6-28-63	121.2	104.8	6001
20S/22E-10C01 M	226.0	7-25-61	106.9	197.6	6001
20S/25E-14F01 M	304.5	8-30-61	111.0	193.5	
		9-20-61	101.6	202.9	
		10-25-61	98.9	205.6	
		11-28-61	89.5	215.0	
		12-21-61	86.7	217.8	

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
KANEAH DELTA WATER CONSERV DIST					
205/25E-14F01 M			5-22.24		
CONT.					
1-25-62	304.5	84.6		219.9	6001
2-28-62		84.2		220.3	
3-28-62		84.0		220.5	
4-25-62		95.1		209.4	
5-22-62		87.5		217.0	
6-19-62		93.5		211.0	
7-24-62		105.7		198.8	
8-22-62		108.5		196.0	
9-18-62		97.5		207.0	
10-15-62		91.7		212.8	
11-19-62		87.5		217.0	
12-18-62		84.8		219.7	
1-21-63		86.0		218.5	
2-26-63		92.0		212.5	
3-26-63		91.0		213.5	
4-22-63		81.7		222.8	
5-20-63		86.6		217.9	
6-27-63		98.4		206.1	
TULARE IRRIGATION DISTRICT					
195/23E-17J01 M			5-22.25		
10-02-61					6001
2-07-62	327.0	69.3		257.7	
10-08-62		57.9		269.1	
2-05-63		59.2		267.8	
3-21-63					
6-28-63					
205/23E-08B02 M					
7-26-61					6001
8-31-61	241.0	112.1		128.9	
9-20-61		114.3		126.7	
10-25-61		115.4		125.6	
11-28-61		125.6		115.6	
12-20-61		112.9		128.1	
1-23-62		112.0		129.0	
2-28-62		109.7		130.3	
3-27-62		109.6		131.3	
4-23-62		123.5		117.4	
5-22-62		111.5		129.5	
6-19-62		126.0		115.0	
7-23-62		115.2		125.8	
8-22-62		117.0		124.0	
9-18-62		129.9		111.1	
10-15-62		114.1		126.9	
11-19-62		111.5		129.5	
12-17-62		109.6		131.4	
1-21-63		109.2		131.8	
2-25-63		107.7		133.3	
3-25-63		110.5		130.5	
4-22-63		111.0		130.0	
5-20-63		110.1		130.9	
6-27-63		125.7		115.3	
205/23E-08G01 M					
7-26-61					6001
8-31-61	241.0	117.4		123.6	
9-20-61		115.3		125.7	
10-25-61		116.2		124.8	
11-28-61		117.0		124.0	
12-27-61		114.9		126.1	
1-23-62		112.0		129.0	
2-28-62		111.0		130.0	
3-27-62		110.8		130.2	
4-23-62					
5-22-62		113.3		127.7	
6-19-62					
7-23-62		116.6		124.4	
TULARE IRRIGATION DISTRICT					
195/23E-14R01 M			5-22.25		
10-10-62					6001
2-20-63	270.0	90.8		179.2	
5-20-63		107.0		163.0	
6-27-63		89.0		181.0	
195/23E-32H01 M					
10-10-62					6001
2-20-63	250.5	107.9		142.6	
5-20-63		104.0		146.5	
195/24E-16P01 M					
7-24-62					6001
8-22-62	290.0	110.3		179.7	
9-18-62		95.5		194.5	
10-15-62		91.3		198.7	
11-19-62		90.7		199.3	
12-18-62		88.1		201.9	
1-21-63		91.7		198.3	
2-04-63		85.6		204.4	
3-25-63		87.0		203.0	
4-22-63		107.6		182.0	
5-20-63		99.6		182.4	
6-27-63		98.2		191.8	
195/24E-27O01 M					
5-20-63					6001
6-27-63	290.0	92.5		197.5	
		99.4		190.6	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA		
TULARE IRRIGATION DISTRICT							
205/23E-08G01 M	241.0	8-22-62	118.6	122.4	6001		
CONT.		9-18-62	□		6001		
		10-18-62	115.7	125.3			
		11-18-62	112.8	128.2			
		12-17-62	111.0	130.0			
		1-21-63	110.3	130.7			
		2-01-63	#				
205/24E-16H01 M	273.0	10-05-61	108.4	164.6	6001		
		2-09-62	93.2	179.8			
		10-10-62	105.3	167.7			
		2-06-63	93.0	180.0			
		5-20-63	98.9	174.1			
		6-27-63	113.1	159.9			
205/24E-30J02 M	250.0	7-26-61	□		6001		
CONT.	8-31-61	□					
	9-20-61	□					
	10-25-61	97.9	152.1				
	11-28-61	96.8	153.2				
	12-20-61	95.5	154.5				
	1-25-62	86.7	163.3				
	2-28-62	95.9	154.1				
	3-27-62	98.1	151.9				
	4-23-62	□					
	5-22-62	□					
	6-19-62	□					
	7-23-62	□					
	8-22-62	□					
	9-18-62	□					
	10-15-62	99.4	150.6				
	11-19-62	97.8	152.2				
	12-17-62	107.3	142.7				
215/23E-05R01 M	222.0	1-21-63	□		6001		
		2-25-63	105.4	144.6			
		3-25-63	96.9	153.1			
		4-22-63	□				
		5-20-63	□				
		6-27-63	□				
CONT.		10-03-61	101.4	120.6	6001		
		2-07-62	99.9	122.1			
		10-09-62	101.9	120.1			
		2-08-63	97.7	124.3			
		5-21-63	99.2	122.8			
TULARE IRRIGATION DISTRICT							
215/23E-05R01 M	222.0	6-28-63	100.1	121.9	6001		
CONT.							
EXETER IRRIGATION DISTRICT							
185/26E-25K01 M	436.0	7-25-61	76.0	360.0	6001		
CONT.		8-30-61	76.9	359.1	6001		
		9-20-61	74.8	361.2			
		10-25-61	78.8	357.2			
		11-29-61	78.4	357.6			
		12-19-61	76.0	360.0			
		1-23-62	74.7	361.3			
		3-01-62	70.1	365.9			
		3-28-62	68.2	367.8			
		4-26-62	68.5	367.5			
		5-23-62	75.6	360.4			
		6-20-62	66.6	369.4			
		7-24-62	66.8	369.2			
		8-23-62	66.6	369.4			
		9-19-62	66.8	369.2			
		10-16-62	66.3	369.7			
		11-20-62	65.7	370.3			
		12-18-62	67.1	368.9			
185/27E-29U01 M	447.0	1-22-63	64.3	371.7	6001		
		2-26-63	59.7	376.3			
		3-25-63	59.0	377.0			
		4-22-63	57.7	378.3			
		5-20-63	59.9	376.1			
		6-28-63	57.4	378.6			
		7-24-62	36.8	410.2			
		8-23-62	41.0	406.0			
		9-19-62	38.3	408.7			
195/26E-14E01 M	375.0	10-16-62	36.7	410.3	6001		
		11-20-62	41.7	405.3			
		12-18-62	36.1	410.9			
		1-22-63	39.1	404.0			
		2-06-63	36.5	410.5			
		2-25-63	37.7	409.3			
		3-26-63	37.0	410.0			
		4-22-63	31.1	415.9			
		5-20-63	35.1	411.9			
		6-28-63	29.5	411.7			
7-25-61		□					
8-30-61		140.6					
195/26E-14E01 M		375.0	7-25-61	□		234.4	6001
			8-30-61	140.6			

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
EXETER IRRIGATION DISTRICT					
5-22.26					
195/26E-14E01 M	375.0	9-20-61	135.5	239.5	6001
CONT.		10-25-61	124.9	250.1	
		11-29-61	119.7	255.3	
		12-27-61	117.2	255.8	
		1-23-62	113.0	265.0	
		3-01-62	115.0	265.4	
		3-28-62	112.1	265.9	
		4-26-62	111.6	263.4	
		5-23-62	□		
		6-20-62	116.7	258.3	
		7-23-62	117.9	257.1	
		8-23-62	112.0	263.0	
		9-19-62	108.4	266.6	
		10-16-62	104.2	270.8	
		11-20-62	106.9	268.1	
LINDSAY-STRATHMORE IRRIG DIST					
5-22.27					
205/27E-21F01 M	414.0	2-05-62	67.7	346.3	6001
CONT.		10-12-62	□		
		2-04-63	59.2	354.8	
205/27E-29J01 M	406.0	2-04-63	54.6	351.4	6001
LINDMORE IRRIGATION DISTRICT					
5-22.28					
205/26E-01P01 M	360.0	9-30-61	139.6	220.4	6001
		2-05-62	116.2	243.8	
		10-08-62	109.0	251.0	
		2-05-63	109.0	251.0	
		5-20-63	110.0	250.0	
		6-28-63	99.0	261.0	
		10-09-62	126.9	214.1	6001
		2-06-63	119.0	222.0	
		7-25-61	113.5	249.0	6001
		8-30-61	114.2	248.3	
		9-20-61	110.3	252.2	
		10-25-61	106.8	255.7	
		11-29-61	103.4	259.1	
		12-19-61	101.8	260.7	
		1-24-62	99.5	264.6	
LINDSAY-STRATHMORE IRRIG DIST					
5-22.27					
205/26E-24K01 M	362.5	3-01-62	99.5	263.0	6001
		3-28-62	96.8	263.7	
		4-25-62	99.5	263.0	
		5-23-62	98.2	264.3	
		6-20-62	97.9	264.6	
		7-23-62	97.5	265.0	
		8-22-62	97.9	264.6	
		9-18-62	93.8	268.7	
		10-15-62	91.9	270.6	
		11-19-62	88.6	273.9	
		12-18-62	89.3	273.2	
		1-22-63	92.5	270.0	
		2-26-63	86.2	276.3	
		3-21-63	88.5	274.0	
		4-25-63	84.8	277.7	
		5-20-63	85.8	276.7	
		6-27-63	87.1	275.4	
205/26E-32A01 M	331.5	7-25-61	□		6001
		8-30-61	150.9	180.6	
EXETER IRRIGATION DISTRICT					
5-22.26					
195/26E-14E01 M	375.0	9-20-61	135.5	239.5	6001
CONT.		10-25-61	124.9	250.1	
		11-29-61	119.7	255.3	
		12-27-61	117.2	255.8	
		1-23-62	113.0	265.0	
		3-01-62	115.0	265.4	
		3-28-62	112.1	265.9	
		4-26-62	111.6	263.4	
		5-23-62	□		
		6-20-62	116.7	258.3	
		7-23-62	117.9	257.1	
		8-23-62	112.0	263.0	
		9-19-62	108.4	266.6	
		10-16-62	104.2	270.8	
		11-20-62	106.9	268.1	
LINDSAY-STRATHMORE IRRIG DIST					
5-22.27					
195/26E-23E01 M	359.0	10-10-62	115.0	244.0	6001
		2-07-63	96.5	262.5	
195/27E-29D01 M	385.0	10-12-62	91.6	293.4	6001
		2-04-63	91.7	293.3	
		7-24-62	64.9	307.1	6001
		8-23-62	62.8	309.2	
		9-19-62	62.7	309.3	
		10-16-62	62.1	309.9	
		11-20-62	62.5	309.5	
		12-19-62	62.2	309.8	
		1-22-63	64.4	307.6	
		2-26-63	65.9	306.1	
		3-26-63	66.7	305.3	
		4-22-63	67.4	304.6	
		5-20-63	67.5	304.5	
		6-28-63	67.8	304.2	
205/27E-21F01 M	414.0	10-03-61	□		6001

GROUND WATER LEVELS AT WELLS

STATE, WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LINDMORE IRRIGATION DISTRICT					
5-22-28					
20S/26E-32A01 M	331.5	9-20-61	141.3	190.2	6001
CONT.		10-25-61	132.7	198.6	
		11-28-61	127.9	203.6	
		12-21-61	124.9	206.9	
		1-24-62	119.8	211.7	
		2-28-62	117.0	214.5	
		3-28-62	□		
		4-25-62	□		
		5-23-62	124.5	207.0	
		6-19-62	136.5	195.0	
		7-00-62	□		
		8-22-62	146.4	185.1	
		9-18-62	□		
		10-15-62	132.0	199.5	
		11-19-62	124.0	207.5	
		12-18-62	120.0	211.5	
		1-21-63	119.3	212.2	
		2-26-63	120.0	211.5	
		3-21-63	126.8	204.7	
		4-25-63	115.5	216.0	
		5-20-63	118.9	212.6	
		6-27-63	136.0	195.5	
		7-26-61	□		
		8-30-61	81.1	310.9	
		9-20-61	81.6	310.4	
		10-25-61	80.3	311.7	
		11-29-61	73.6	318.4	
		12-19-61	72.5	319.5	
		1-24-62	72.2	319.8	
		3-01-62	70.7	321.3	
		3-28-62	67.3	324.7	
		4-25-62	□		
		5-23-62	□		
		6-20-62	□		
		7-23-62	68.7	323.3	
		8-22-62	65.2	326.8	
		9-19-62	□		
		10-15-62	63.9	328.1	
		11-19-62	62.1	329.9	
		12-18-62	60.7	331.3	
		1-22-63	65.0	327.0	
		2-26-63	63.0	329.0	
		3-21-63	59.0	333.0	
		4-25-63	57.2	334.8	
20S/26E-32A01 M	331.5	9-20-61	141.3	190.2	6001
CONT.		10-25-61	132.7	198.6	
		11-28-61	127.9	203.6	
		12-21-61	124.9	206.9	
		1-24-62	119.8	211.7	
		2-28-62	117.0	214.5	
		3-28-62	□		
		4-25-62	□		
		5-23-62	124.5	207.0	
		6-19-62	136.5	195.0	
		7-00-62	□		
		8-22-62	146.4	185.1	
		9-18-62	□		
		10-15-62	132.0	199.5	
		11-19-62	124.0	207.5	
		12-18-62	120.0	211.5	
		1-21-63	119.3	212.2	
		2-26-63	120.0	211.5	
		3-21-63	126.8	204.7	
		4-25-63	115.5	216.0	
		5-20-63	118.9	212.6	
		6-27-63	136.0	195.5	
		7-26-61	□		
		8-30-61	81.1	310.9	
		9-20-61	81.6	310.4	
		10-25-61	80.3	311.7	
		11-29-61	73.6	318.4	
		12-19-61	72.5	319.5	
		1-24-62	72.2	319.8	
		3-01-62	70.7	321.3	
		3-28-62	67.3	324.7	
		4-25-62	□		
		5-23-62	□		
		6-20-62	□		
		7-23-62	68.7	323.3	
		8-22-62	65.2	326.8	
		9-19-62	□		
		10-15-62	63.9	328.1	
		11-19-62	62.1	329.9	
		12-18-62	60.7	331.3	
		1-22-63	65.0	327.0	
		2-26-63	63.0	329.0	
		3-21-63	59.0	333.0	
		4-25-63	57.2	334.8	
20S/27E-29E01 M	392.0	5-20-63	60.4	331.6	6001
CONT.		6-27-63	□		
		7-26-61	151.2*	220.8	
		8-29-61	134.5	237.5	
		9-20-61	116.4	255.6	
		10-26-61	101.1	270.9	
		11-28-61	116.1*	255.9	
		12-21-61	93.0	279.0	
		1-24-62	90.5	281.5	
		2-27-62	86.4	285.6	
		3-28-62	85.0	287.0	
		4-25-62	103.1	268.9	
		5-23-62	108.5	263.5	
		6-20-62	123.0	249.0	
		7-24-62	116.4	255.6	
		8-22-62	117.2	254.8	
		9-18-62	98.8	273.2	
		10-15-62	92.4	279.6	
		11-19-62	85.6	286.4	
		12-18-62	90.5	281.5	
		1-21-63	85.2	286.8	
		2-26-63	81.3	290.7	
		4-25-63	84.8	287.2	
		5-20-63	103.9	268.1	
		6-27-63	105.5	266.5	
		7-26-61	49.6	379.4	
		8-29-61	55.5	373.5	
		9-20-61	56.9*	372.1	
		10-26-61	54.7	374.3	
		11-28-61	□		
		12-29-61	53.0	376.0	
		1-24-62	52.9	376.1	
		3-01-62	51.5	377.5	
		3-28-62	48.7	380.3	
		4-25-62	48.8	379.2	
		5-23-62	50.0	379.0	
		6-20-62	48.7	380.3	
		7-23-62	43.6	385.4	
		8-22-62	42.0	387.0	
		9-18-62	41.2	387.8	
		10-15-62	41.4	387.6	
		11-19-62	41.4	386.9	
		12-18-62	42.1		

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LINDMORE IRRIGATION DISTRICT					
5-22.28					
21S/27E-02E01 M CONT.	429.0	1-22-63	47.1	381.9	6001
		2-26-63	43.5	385.5	
		3-21-63	40.3	388.7	
		4-25-63	40.8	388.2	
		5-20-63	42.9	386.1	
		6-27-63	43.5	385.5	
PORTERVILLE IRRIGATION DISTRICT					
5-22.29					
21S/27E-23N01 M	374.0	10-09-61	79.7	294.3	6001
		2-06-62	78.7	295.3	
		6-25-62	69.9	304.1	
		8-07-62	74.1	299.9	
		8-16-62	80.3	295.7	
		10-08-62	63.9	310.1	
		1-22-63	66.9	307.1	
		2-06-63	68.1	305.9	
		3-22-63	66.1	307.9	
		4-26-63	67.1	306.9	
		5-27-63	67.7	306.3	
		6-18-63	66.7	307.3	
21S/27E-21E01 M	409.0	7-27-61	49.8	359.2	6001
		8-29-61	53.3	355.7	
		9-20-61	DRY		
		10-26-61	53.4	355.6	
		11-28-61	52.4	356.6	
		12-19-61	51.9	357.1	
		1-24-62	51.5	357.5	
		2-27-62	50.9	358.1	
		3-28-62	49.9	359.1	
		4-24-62	50.0	359.0	
		5-23-62	50.4	358.6	
		6-20-62	52.1	356.9	
		7-22-62	DRY		
		8-22-62	DRY		
		9-22-62	DRY		
		10-15-62	55.7	355.3	
		11-19-62	50.3	358.7	
		12-18-62	50.2	358.8	
		1-21-63	49.3	359.7	
		2-26-63	47.6	361.4	
		3-21-63	48.0	361.0	
		4-25-63	46.3	362.7	
		5-20-63	45.4	363.6	
PORTERVILLE IRRIGATION DISTRICT					
5-22.29					
21S/27E-21E01 M CONT.	409.0	6-27-63	46.1	362.9	6001
		10-12-62	□		6001
		2-01-63	60.5	375.5	
		1-24-63	39.4	380.6	6001
		3-22-63	40.0	380.0	
		5-21-63	39.1	380.9	
		6-24-63	□		
		7-26-61	□		6001
		8-29-61	□		
		9-20-61	□		
		10-26-61	45.0	369.0	
		11-28-61	46.0	368.0	
		12-19-61	43.9	370.1	
		1-24-62	□		
		2-27-62	42.9	371.1	
		3-28-62	□		
		4-24-62	□		
		5-23-62	39.9	374.1	
		6-20-62	41.0	373.0	
		7-23-62	□		
		8-22-62	□		
		9-18-62	□		
		10-15-62	39.0	375.0	
		11-19-62	37.9	376.1	
		12-18-62	36.7	377.3	
		1-24-63	#		
		10-09-61	89.5	305.5	6001
		12-04-61	87.4	307.6	
		2-08-62	85.0	310.0	
		4-23-62	86.1	308.9	
		6-11-62	88.8	306.2	
		8-17-62	117.2	277.8	
		10-08-62	93.9	301.1	
		1-22-63	□		
		2-08-63	85.8	309.2	
		3-22-63	84.4	310.6	
		4-26-63	85.1	309.9	
		5-27-63	88.1	306.9	
		6-17-63	89.7	305.3	
22S/27E-10R01 M	467.0	7-23-62	126.5	340.5	6001

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
PORTERVILLE IRRIGATION DISTRICT					
5-22-29					
22S/27E-10R01 M	467.0	8-22-62	122.0	345.0	6001
CONT.		9-18-62	123.0	344.0	6001
		10-15-62			
		11-20-62	120.2	346.8	
		12-18-62	118.5	348.5	
		1-22-63	80.5	386.5	
		2-07-63	148.0*	319.0	
		3-22-63	80.2	386.8	
		4-26-63	78.9	388.1	
		5-27-63	82.9	384.1	
		6-19-63	115.8	351.2	
LOWER TULE RIVER IRRIGATION DIST					
5-22-30					
21S/23E-22J01 M	221.5	10-09-62	119.3	102.2	6001
CONT.		2-21-63	113.6	107.9	
21S/24E-15H01 M	253.0	10-09-62	73.9	179.1	6001
CONT.		2-05-63	71.0	182.0	
21S/24E-31D01 M	230.0	7-26-61	87.6	142.4	6001
CONT.		8-30-61	88.4	141.6	
		9-18-61	88.9	141.1	
		10-24-61	89.7	140.3	
		11-28-61	90.0	140.0	
		12-20-61	90.7	139.3	
		1-24-62	90.9	139.1	
		2-28-62	90.1	139.9	
		3-27-62	90.6	139.4	
		4-23-62	90.8	139.2	
		5-22-62	90.5	139.5	
		6-19-62	90.3	139.7	
		7-23-62	89.8	140.2	
		8-22-62	89.2	140.8	
		9-18-62	89.0	141.0	
10-15-62	89.0	141.0			
11-19-62	88.5	141.5			
12-17-62	88.5	141.5			
1-14-63	88.7	141.3			
2-05-63	89.5	140.5			
4-03-63	86.5	143.5			
5-01-63	87.5	142.5			
6-03-63	85.5	144.5			
21S/24E-35W01 M	251.0	7-26-61	95.4	155.6	6001
LOWER TULE RIVER IRRIGATION DIST					
5-22-30					
21S/24E-35M01 M	251.0	8-30-61	98.9	152.1	6001
CONT.		9-18-61	99.8	151.2	
		10-25-61	101.7	149.3	
		11-28-61	100.7	150.3	
		12-20-61	100.0	151.0	
		1-24-62	99.1	151.9	
		2-28-62	93.0	158.0	
		3-27-62	93.1	157.9	
		4-23-62	95.1	155.9	
		5-22-62	99.9	151.1	
		6-19-62	101.0	150.0	
CONT.		7-23-62	98.0	153.0	
		8-22-62	96.8	154.2	
		9-18-62	95.2	155.8	
		10-15-62	95.6	155.4	
		11-19-62	96.0	155.0	
		12-17-62	95.4	155.6	
		1-14-63	95.6	155.4	
		2-06-63	93.0	158.0	
		4-03-63	96.0	155.0	
		5-01-63	97.0	154.0	
CONT.		6-03-63	96.0	155.0	
21S/25E-08H01 M	285.0	10-10-62	84.5	200.5	6001
CONT.		2-06-63			
21S/25E-16A01 M	291.0	10-02-61	74.0	217.0	6001
CONT.		2-20-62	66.0	225.0	
		10-10-62	67.0	224.0	
		1-14-63	61.5	229.5	
		2-06-63	62.0	229.0	
		6-05-63	27.0	264.0	
21S/26E-06G02 M	322.0	7-26-61	156.8*	165.2	6001
CONT.		8-30-61	158.0*	164.0	
		9-20-61	143.1*	178.9	
		10-26-61	112.5	209.5	
		11-28-61	105.5	216.5	
		12-21-61	99.0	223.0	
		1-25-62	96.6	225.4	
		2-28-62	94.6	227.4	
		3-28-62	108.5	213.5	
		4-25-62	129.4	192.6	
		5-22-62	122.1	199.9	
CONT.		6-19-62	140.7	181.3	

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA	STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LOWER TULE RIVER IRRIGATION DIST 5-22-30											
215/26E-06G02 M CONT.	322.0	7-24-62 8-22-62 9-18-62 10-15-62 11-19-62 12-18-62 1-14-63 2-06-63 4-03-63 5-02-63 6-05-63	136.8 131.9 125.7 120.8 94.3 91.2 92.5 92.5 99.5 100.5 103.5	185.2 190.1 196.5 219.2 227.7 230.8 229.5 229.5 222.5 221.5 218.5	6001	225/25E-10E01 M CONT.	294.0	8-08-61 9-15-61 9-28-61 11-14-61 12-18-61 1-23-62 2-15-62 3-27-62 4-17-62 5-11-62 6-19-62 7-19-62 8-16-62 9-13-62 10-11-62 11-21-62 1-15-63 2-07-63 3-06-63 4-03-63 5-02-63 6-05-63	121.5 130.5 118.5 119.5 114.5 119.5 114.5 125.5 114.5 120.5 123.5 123.0 126.5 121.5 115.5 117.9 117.5 117.5 118.5 120.5 119.5	172.5 167.7 175.5 178.5 179.5 179.5 178.5 168.5 170.5 173.5 170.5 171.0 167.5 178.5 178.5 176.1 176.5 175.5 173.5 174.5	6001
215/26E-10H01 M	359.0	7-24-62 8-22-62 9-18-62 10-15-62 11-19-62 12-18-62 1-14-63 2-06-63 3-03-63 5-01-63 6-05-63	100.0 93.0 86.9 86.2 85.3 90.0 65.0	259.0 266.0 272.1 272.8 273.7 269.0 294.0	6001	225/26E-06A01 M	300.5	7-19-62 8-16-62 9-13-62 10-11-62 11-21-62 12-12-62 1-15-63 2-07-63 3-06-63 4-03-63 5-02-63 6-05-63	145.5 139.5 139.5 126.5 132.5 127.5 134.5 120.5 127.5 151.5 130.5 139.5	155.0 161.0 170.0 168.0 173.0 168.0 180.0 173.0 148.0 170.0 161.0	6001
225/24E-09A01 M	244.0	9-28-61 2-15-62 10-10-62 1-15-63 2-07-63 6-05-63	122.0 118.0 127.0 129.3 126.0	122.0 126.0 117.0 114.7 118.0 118.0	6001	225/26E-06A01 M	337.0	10-08-62 2-05-63	120.0 113.7	217.0 223.3	6001
225/24E-15A01 M	251.5	7-19-62 8-16-62 9-13-62 10-10-62 11-21-62 12-12-62 1-15-63 2-06-63 3-06-63 4-03-63 5-01-63 6-03-63 7-22-61	157.0 155.0 156.0 163.0 151.0 141.0 153.0*	94.5 96.5 95.5 88.5 100.5 110.5 98.5	6001	225/26E-06F04 M	331.0	7-27-61 8-30-61 9-20-61 10-26-61 11-30-61 12-19-61	157.6 173.1 149.7 140.2 130.1 127.4	173.4 173.1 181.3 190.8 200.9 203.6	6001
225/25E-10E01 M	294.0				6001						

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LOWER TULE RIVER IRRIGATION DIST					
5-22.30					
22S/26E-06F04 M	331.0	1-25-62	125.1	205.9	6001
CONT.		2-27-62	123.8	207.2	
		3-28-62	128.2	202.8	
		4-24-62	126.9	204.1	
		5-22-62	127.4	203.6	
		6-20-62	134.3	196.7	
		7-23-62	137.8	193.2	
		8-22-62	140.4	190.6	
		9-18-62	136.9	194.1	
		10-15-62	129.3	201.7	
		11-20-62	123.9	207.1	
		12-18-62	122.3	208.7	
		1-15-63	120.5	210.5	
		2-07-63	120.5	210.5	
		4-03-63	123.5	207.5	
		5-01-63	121.5	209.5	
		6-03-63	119.5	211.5	
VANDALIA IRRIGATION DISTRICT					
5-22.31					
22S/28E-07Q01 M	524.0	7-27-61	152.0	372.0	6001
CONT.		9-01-61	135.6	388.4	
		9-20-61	135.6	388.0	
		10-26-61	136.0	389.2	
		11-30-61	134.8	391.2	
		12-20-61	132.8	394.3	
		1-25-62	129.7	396.7	
		2-27-62	127.3	398.9	
		3-28-62	125.1	398.9	
		4-24-62	127.5	396.5	
		5-22-62	127.5	393.0	
		6-20-62	131.0	384.5	
		7-23-62	139.5	388.0	
		8-22-62	136.0	387.9	
		9-18-62	136.1	386.8	
		10-15-62	137.2	391.0	
		11-20-62	133.0	392.5	
		12-18-62	131.5	394.3	
		1-23-63	129.7	397.1	
		2-26-63	126.9	399.0	
		3-21-63	125.0	401.1	
		4-25-63	122.9	402.0	
		5-20-63	122.0	390.1	
		6-27-63	133.9	399.9	
22S/28E-18A01 M	535.0	7-23-62	135.1	399.9	6001
VANDALIA IRRIGATION DISTRICT					
5-22.32					
22S/26E-12R02 M	396.0	10-04-61	123.3	272.7	6001
CONT.		2-08-62	114.5	281.5	
		8-11-62	112.0	274.0	
		10-08-62	117.6	278.4	
		10-12-62	118.0	278.0	
		2-04-63	113.9	282.1	
		4-26-63	113.4	282.6	
		6-18-63	116.8	277.2	
		7-23-62	154.4	216.6	6001
		8-22-62	147.3	223.7	
		9-18-62	145.1	245.9	
		10-15-62	146.4	248.6	
		11-20-62	136.0	237.0	
		12-18-62	133.6	237.4	
		1-23-63	135.0	236.0	
		2-20-63	134.7	236.3	
		3-21-63	139.5	231.5	
		4-22-63	135.9	235.1	
		5-20-63	143.0	228.0	
		6-27-63	142.2	228.8	
SAUCELITO IRRIGATION DISTRICT					
5-22.33					
22S/26E-32E01 M	339.0	7-27-61	152.0	372.0	6001
CONT.		8-30-61	152.0	372.0	
		9-20-61	162.9	372.0	
		10-26-61	158.6	372.0	
		11-30-61	159.1	372.0	
		12-20-61	158.3	372.0	
		1-25-62	148.5	372.0	
		2-27-62	146.9	372.0	
		3-28-62	153.2	372.0	
		4-24-62	153.2	372.0	
		5-22-62	153.2	372.0	
		6-20-62	153.2	372.0	
		7-23-62	153.2	372.0	
		8-22-62	153.2	372.0	
		9-18-62	153.2	372.0	
		10-15-62	153.2	372.0	
		11-20-62	153.2	372.0	
		12-18-62	153.2	372.0	
		1-23-63	153.2	372.0	
		2-26-63	153.2	372.0	
		3-21-63	153.2	372.0	
		4-25-63	153.2	372.0	
		5-20-63	153.2	372.0	
		6-27-63	153.2	372.0	
22S/28E-18A01 M	535.0	7-23-62	135.1	399.9	6001

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SAUCELITO IRRIGATION DISTRICT					
5-22.32					
225/26E-32E01 M	339.0	4-26-62	145.6	193.4	6001
CONT.		5-21-62	144.3	194.7	
		6-20-62	146.2	190.8	
		7-23-62	□		
		8-22-62	□		
		9-18-62	153.8	185.2	
		10-15-62	145.3	193.7	
		11-19-62	142.7	196.3	
		12-18-62	146.6	196.4	
		1-23-63	142.6	196.3	
		2-26-63	146.2	192.8	
		3-21-63	149.8	189.2	
		4-25-63	139.3	199.7	
		5-20-63	137.8	201.2	
		6-27-63	□		
235/26E-02R01 M	397.0	10-11-62	164.0	233.0	6001
		2-07-63	168.0	229.0	
235/26E-03R01 M	381.0	9-19-61	199.6	181.4	6001
		10-26-61	193.4	187.6	
		11-29-61	196.7	184.3	
		12-19-61	187.1	193.9	
		1-25-62	183.8	197.2	
		2-26-62	181.2	199.6	
		3-20-62	183.3	197.7	
		4-24-62	191.1	189.9	
		5-21-62	187.9	193.1	
		6-20-62	□		
		7-24-62	206.3	174.7	
		8-22-62	199.7	181.3	
		9-18-62	194.0	187.0	
		10-15-62	192.5	188.5	
		11-19-62	180.9	200.1	
		12-17-62	179.7	201.3	
		1-23-63	□		
		2-26-63	□		
		3-21-63	□		
		4-25-63	190.6	190.4	
		5-20-63	195.4	185.6	
		6-27-63	181.7	199.3	
PIXLEY IRRIGATION DISTRICT					
5-22.33					
225/25E-25N01 M	310.0	7-26-61	220.3	89.7	6001
		8-30-61	221.4	88.6	
		9-20-61	211.9	98.1	
		10-26-61	205.6	104.4	
		11-29-61	199.6	110.4	
		12-20-61	195.7	114.3	
		1-25-62	191.0	119.0	
		2-27-62	188.1	121.9	
		3-28-62	189.7	120.3	
		4-24-62	195.3	114.7	
		5-21-62	195.3	114.7	
		6-20-62	202.1	107.9	
		7-24-62	209.5	100.5	
		8-22-62	209.5	100.5	
		9-18-62	205.6	104.4	
		10-15-62	198.2	111.8	
		11-19-62	192.8	117.2	
		12-17-62	189.2	120.8	
		1-23-63	188.1	121.9	
		2-26-63	185.3	124.7	
		3-21-63	195.5	114.5	
		4-25-63	187.8	122.2	
		5-20-63	193.1	116.9	
		6-27-63	199.7	110.3	
235/23E-02B01 M	207.0	10-10-62	□		6001
		2-04-63	33.1	173.9	
235/24E-16R01 M	220.0	7-26-61	126.3	93.7	6001
		8-30-61	129.9	90.1	
		9-18-61	130.4	89.6	
		10-25-61	128.9	91.1	
		11-29-61	126.0	94.0	
		12-18-61	123.1	96.9	
		1-24-62	119.0	101.0	
		2-21-62	117.0	103.0	
		3-28-62	115.8	104.2	
		4-23-62	118.7	101.3	
		5-21-62	119.6	100.4	
		6-21-62	120.9	99.1	
		7-24-62	125.3	94.7	
		8-23-62	127.0	93.0	
		9-19-62	128.0	92.0	
		10-16-62	127.6	92.4	
		11-19-62	127.5	92.5	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
PIXLEY IRRIGATION DISTRICT					
5-22-33					
235/24E-16R01 M	220.0	12-17-62	122.7	97.3	6001
CONT.		1-24-63	120.3	99.7	
		2-26-63	120.2	99.8	
		3-22-63	120.8	99.2	
		4-26-63	122.3	97.7	
		5-21-63	122.5	97.5	
		6-28-63	123.1	96.9	
		7-26-61	250.5	27.5	6001
	278.0	8-30-61	243.6	34.4	
		9-19-61	217.4	60.6	
		10-25-61	190.6	87.4	
		11-29-61	178.6	99.4	
CONT.		12-19-61	170.4	107.6	
		1-25-62	160.7	117.3	
		2-26-62	156.0	122.0	
		3-28-62	191.5	86.5	
		4-24-62	183.7	94.3	
		5-21-62	175.6	102.4	
		6-20-62	DRY		
		7-23-62	DRY		
		8-22-62	DRY		
		9-18-62	DRY		
		10-15-62	180.6	97.4	
CONT.		11-19-62	166.5	111.5	
		12-17-62	160.7	117.3	
		1-23-63	162.6	115.4	
		2-26-63	153.4	124.6	
		3-22-63	193.5	84.5	
		4-25-63	168.8	109.2	
		5-20-63	173.9	104.1	
		6-27-63	196.0	82.0	
		7-23-62	87.9	212.1	6001
	300.0	8-22-62	87.0	213.0	
		9-18-62	86.0	214.0	
CONT.		10-15-62	83.0	217.0	
		11-19-62	82.6	217.4	
		12-17-62	78.8	221.2	
		1-23-63	79.8	220.2	
		2-26-63			
		3-20-63			
		7-26-61	80.2	209.8	6001
	290.0	8-30-61	78.9	211.1	
PIXLEY IRRIGATION DISTRICT					
5-22-33					
235/24E-16R01 M	220.0	12-17-62	122.7	97.3	6001
CONT.		1-24-63	120.3	99.7	
		2-26-63	120.2	99.8	
		3-22-63	120.8	99.2	
		4-26-63	122.3	97.7	
		5-21-63	122.5	97.5	
		6-28-63	123.1	96.9	
		7-26-61	250.5	27.5	6001
	278.0	8-30-61	243.6	34.4	
		9-19-61	217.4	60.6	
		10-25-61	190.6	87.4	
		11-29-61	178.6	99.4	
CONT.		12-19-61	170.4	107.6	
		1-25-62	160.7	117.3	
		2-26-62	156.0	122.0	
		3-28-62	191.5	86.5	
		4-24-62	183.7	94.3	
		5-21-62	175.6	102.4	
		6-20-62	DRY		
		7-23-62	DRY		
		8-22-62	DRY		
		9-18-62	DRY		
		10-15-62	180.6	97.4	
CONT.		11-19-62	166.5	111.5	
		12-17-62	160.7	117.3	
		1-23-63	162.6	115.4	
		2-26-63	153.4	124.6	
		3-22-63	193.5	84.5	
		4-25-63	168.8	109.2	
		5-20-63	173.9	104.1	
		6-27-63	196.0	82.0	
		7-23-62	87.9	212.1	6001
	300.0	8-22-62	87.0	213.0	
		9-18-62	86.0	214.0	
CONT.		10-15-62	83.0	217.0	
		11-19-62	82.6	217.4	
		12-17-62	78.8	221.2	
		1-23-63	79.8	220.2	
		2-26-63			
		3-20-63			
		7-26-61	80.2	209.8	6001
	290.0	8-30-61	78.9	211.1	

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
PIXLEY IRRIGATION DISTRICT					
5-22-33					
235/25E-15A01 M	290.0	9-19-61	78.5	211.5	6001
CONT.		10-25-61	79.5	210.7	
		11-29-61	80.0	208.0	
		12-19-61	81.5	208.7	
		1-25-62	82.7	207.5	
		2-26-62	83.8	206.2	
		3-28-62	84.0	206.0	
		4-24-62	84.6	205.4	
		5-21-62	84.0	206.0	
		6-20-62	84.6	205.4	
		7-24-62	84.6	205.4	
		8-22-62	84.2	205.8	
CONT.		9-18-62	83.8	206.2	
		10-15-62	83.0	207.0	
		11-19-62	82.4	207.6	
		12-17-62	81.9	208.1	
		1-23-63	81.7	208.3	
		2-26-63	81.2	208.8	
		3-22-63			
		7-26-61	236.4	54.6	6001
	291.0	8-30-61	236.4	54.6	
		9-19-61	213.9	77.1	
		10-25-61	199.2	91.8	
CONT.		11-29-61	186.8	104.2	
		12-19-61	182.4	108.6	
		1-25-62	173.0	118.0	
		2-26-62	165.4	125.6	
		3-28-62	181.1	109.9	
		4-24-62	190.7	100.3	
		5-21-62	183.5	107.5	
		6-20-62	197.9	93.1	
		7-24-62	219.9	71.1	
		8-22-62	223.0	68.0	
		9-18-62	196.9	94.1	
CONT.		10-15-62	196.7	94.3	
		11-19-62	176.0	115.0	
		12-17-62	167.5	123.5	
		1-23-63	165.1	125.9	
		2-26-63	163.9	127.1	
		3-21-63	184.2	106.8	
		4-25-63	170.4	120.6	
		5-20-63	179.9	111.1	
		6-27-63	198.2	92.8	
		7-18-62	194.7	68.3	5000
	263.0	235/25E-16N03 M			

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
PIXLEY IRRIGATION DISTRICT					
23S/25E-16N03 M	263.0	8-17-62	199.8	63.2	5000
CONT.		9-17-62	196.0	67.0	6001
		10-09-62	173.0	90.0	
		11-08-62	160.6	102.4	
		12-04-62	152.7	110.3	
		1-05-63	151.5	111.5	
		2-27-63	142.3	120.7	
		3-27-63	180.0	83.0	
		4-26-63	150.0	104.0	
		5-22-63	150.0	104.0	
		6-19-63	162.4	100.6	
		7-18-62	115.3	147.7	
		8-17-62	114.5	148.5	
		9-11-62	113.5	149.5	
		10-08-62	109.9	153.1	
23S/25E-16N04 M	263.0	11-08-62	107.6	155.4	5000
CONT.		12-04-62	106.2	156.8	
		1-05-63	105.5	157.5	
		2-27-63	104.1	158.9	
		3-27-63	105.3	157.7	
		4-24-63	104.4	158.6	
		5-22-63	104.4	158.6	
		6-19-63	104.1	158.9	
		7-18-62	116.3	152.7	
		8-17-62	116.8	152.2	
		9-11-62	115.8	153.2	
		10-08-62	112.6	156.4	
		11-08-62	111.5	157.5	
		12-04-62	110.1	158.9	
		1-05-63	109.2	159.8	
23S/25E-17N03 M	269.0	2-27-63	106.9	162.1	6001
CONT.		3-27-63	107.4	161.0	
		4-24-63	108.1	160.9	
		5-22-63	108.1	160.9	
		6-19-63	107.7	161.3	
		7-26-61	219.1	125.9	
		8-30-61	219.7	125.3	
		9-19-61	212.5	132.5	
		10-26-61	210.0	135.0	
		11-29-61	204.4	140.6	
		12-19-61	203.3	141.7	
		1-25-62	199.9	145.1	
		2-26-61	219.1	125.9	
		3-26-61	219.7	125.3	
		4-26-61	210.0	135.0	
23S/26E-08R01 M	345.0	5-22-33	197.3	147.7	6001
CONT.		6-26-62	197.3	147.7	
		3-28-62	203.6	141.4	
		4-24-62	203.4	141.6	
		5-21-62	200.2	144.8	
		6-20-62	208.7	136.3	
		7-23-62	211.4	133.6	
		8-22-62	206.8	138.2	
		9-18-62	202.7	142.3	
		10-15-62	198.4	146.6	
		11-19-62	193.9	151.1	
		12-17-62	181.2	153.8	
		1-23-63	189.9	155.1	
		2-26-63	190.5	154.5	
		3-21-63	194.3	150.7	
23S/26E-08R01 M	345.0	4-25-63	189.3	155.7	6001
CONT.		5-20-63	189.2	155.8	
		6-27-63	193.5	151.5	
		5-22-34	193.5	151.5	
		7-27-61	162.9	32.1	
		8-29-61	162.9	32.1	
		9-18-61	162.9	32.1	
		10-25-61	109.5*	85.5	
		11-29-61	90.6	104.4	
		12-18-61	82.2	112.8	
		1-24-62	82.1	112.9	
		2-26-62	76.2	118.8	
		3-29-62	79.9	115.1	
		4-23-62	97.0	98.0	
		5-21-62	82.7	112.3	
		6-20-62	125.0	70.0	
23S/23E-28L01 M	195.0	7-24-62	133.8	61.2	6001
ALPAUGH-ALLENSTWORTH AREA		8-23-62	133.8	61.2	
		9-16-62	107.8	97.2	
		10-16-62	101.2	93.6	
		11-19-62	80.5	114.5	
		12-17-62	76.6	118.2	
		1-24-63	76.1	118.9	
		2-26-63	74.1	120.9	
		3-22-63	95.0	100.0	
		4-25-63	72.6	122.4	
		5-21-63	80.3	114.7	
		6-27-63	80.3	114.7	
		7-26-61	14.0	196.0	
		23S/23E-33A01 M	210.0	196.0	
		23S/23E-33A01 M	210.0	196.0	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
ALPAUGH-ALLENSWORTH AREA					
23S/23E-33A01 M	210.0	8-29-61	14.0	196.0	6001
CONT.	210.0	9-18-61	14.2	195.8	6001
		10-25-61	14.0	196.0	
		11-29-61	13.7	196.3	
		12-18-61	14.0	196.0	
		1-24-62	14.3	195.7	
		2-26-62	13.6	196.4	
		3-29-62	13.5	196.5	
		4-23-62	13.5	196.5	
		5-21-62	13.7	196.3	
		6-21-62	13.7	196.3	
		7-24-62	13.5	196.5	
		8-23-62	13.8	196.2	
		9-19-62	13.9	196.1	
		10-16-62	13.9	196.1	
11-19-62	14.0	196.0			
12-17-62	14.2	195.8			
1-24-63	14.3	195.7			
2-26-63	14.2	195.8			
3-22-63	13.8	196.2			
4-26-63	13.7	196.3			
5-21-63	13.8	196.2			
6-28-63	13.8	196.2			
23S/23E-33A04 M	210.0	7-26-61	141.3	68.7	6001
CONT.	210.0	8-29-61	147.7	62.3	6001
		9-18-61	149.6	60.4	
		10-25-61	148.9	61.1	
		11-29-61	143.7	66.3	
		12-18-61	139.7	70.3	
		1-24-62	129.9	80.1	
		2-26-62	128.9	81.1	
		3-29-62	126.4	83.6	
		4-23-62	136.6	73.4	
		5-21-62	92.5	117.5	
		6-21-62	84.8	125.2	
		7-24-62	73.6	136.4	
		8-23-62	73.9	136.1	
		9-19-62	74.8	135.2	
		10-16-62	75.5	134.5	
		11-19-62	75.7	134.3	
		12-17-62	75.0	135.0	
		1-24-63	74.7	135.3	
		2-26-63	73.8	136.2	
		3-22-63	72.9	137.1	
ALPAUGH-ALLENSWORTH AREA					
24S/23E-21B02 M	204.0	10-09-62	46.7	157.3	6001
CONT.	204.0	2-04-63	43.9	160.1	6001
		7-26-61	75.1	129.9	
		8-29-61	78.0	127.0	
		9-18-61	78.5	126.5	
		10-25-61	79.4	125.6	
		11-29-61	75.3*	129.7	
		12-18-61	75.7*	129.3	
		1-24-62	68.5	136.5	
		2-26-62	66.4	138.6	
		3-29-62	60.3	144.7	
		4-23-62	65.0	140.0	
		5-21-62	63.7	141.3	
		6-21-62	66.8	138.2	
		7-24-62	64.4	140.6	
24S/23E-22E01 M	205.0	7-26-61	75.1	129.9	6001
CONT.	205.0	8-29-61	78.0	127.0	6001
		9-18-61	78.5	126.5	
		10-25-61	79.4	125.6	
		11-29-61	75.3*	129.7	
		12-18-61	75.7*	129.3	
		1-24-62	68.5	136.5	
		2-26-62	66.4	138.6	
		3-29-62	60.3	144.7	
		4-23-62	65.0	140.0	
		5-21-62	63.7	141.3	
		6-21-62	66.8	138.2	
7-24-62	64.4	140.6			

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA			
ALPAUGH-AlLENSWORTH AREA								
5-22-34								
24S/23E-22E01 M	205.0	8-23-62	64.1	140.9	6001			
CONT.		9-19-62	66.5	138.5	6001			
		10-15-62	69.5	135.5				
		11-19-62	67.8	137.2				
		12-17-62	65.8	139.2				
		1-24-63	67.3	137.7				
		2-26-63	70.2	134.8				
		3-22-63	72.7	132.3				
		4-26-63	69.4	135.6				
		5-21-63	69.8	135.2				
		6-28-63	74.9	130.1				
		2-05-62	149.7	56.3		6001		
		10-09-62	176.2	29.8				
		2-04-63	152.5	53.5				
		24S/24E-20R01 M	218.0	7-26-61		197.2	20.8	6001
CONT.		8-29-61	197.5	20.5	6001			
		9-19-61	201.0	17.0				
		10-25-61	□	48.4				
		11-29-61	169.6	65.4				
		12-18-61	152.6	82.4				
		1-24-62	135.6	93.3				
		2-26-62	124.7	67.6				
		3-29-62	□	66.2				
		4-23-62	150.4	51.2				
		5-21-62	148.8	□				
		6-21-62	166.8	□				
		7-24-62	□	□		6001		
		8-23-62	□	25.0				
		9-19-62	193.0	49.1				
24S/24E-25F01 M	249.0	11-19-62	168.9	59.6	6001			
CONT.		12-17-62	158.4	84.8	6001			
		1-25-63	□	56.2				
		2-26-63	133.2	58.7				
		3-22-63	□	39.2				
		4-25-63	161.8	165.1				
		5-21-63	159.3	187.9				
		6-27-63	178.8	□				
		10-09-62	69.9	□		6001		
		2-04-63	47.1	□				
		7-00-61	□	□				
		ALPAUGH-AlLENSWORTH AREA						
		5-22-34						
		24S/24E-25F01 M	249.0	8-29-61		197.5	20.5	6001
		CONT.		9-19-61		201.0	17.0	
10-24-61	□			48.4				
11-29-61	110.0			139.0				
12-18-61	98.6			150.4				
1-24-62	95.2			153.8				
2-26-62	90.4			158.6				
3-29-62	□			□				
4-23-62	□			□				
5-21-62	□			□				
6-21-62	□			□				
7-24-62	□			□				
8-23-62	□			□				
9-19-62	□			140.4				
10-16-62	108.6			□				
24S/24E-32K04 M	226.0	10-10-61	115.8	110.2	6001			
CONT.		2-02-62	92.4	133.6				
		10-10-62	134.1	91.9				
		2-04-63	115.5	110.5				
		5-21-63	106.7	119.3				
		6-28-63	121.4	104.6				
DELANO-EARLMART IRRIG DIST								
5-22-35								
23S/25E-27J02 M	296.0	10-09-62	108.0	188.0	6001			
CONT.		2-07-63	104.0	192.0				
		10-09-62	206.5	150.0				
		2-08-63	197.5	159.0				
		10-10-62	413.0	120.3				
		1-31-63	351.7	181.6				
		7-26-61	107.5	212.5				
		8-30-61	106.6	213.4				
		9-19-61	105.9	214.1				
23S/26E-29P01 M	356.5	10-09-62	206.5	150.0	6001			
CONT.		2-08-63	197.5	159.0				
		10-10-62	413.0	120.3				
		1-31-63	351.7	181.6				
		7-26-61	107.5	212.5				
		8-30-61	106.6	213.4				
		9-19-61	105.9	214.1				
23S/27E-28J01 M	533.3	10-10-62	413.0	120.3	6001			
CONT.		2-08-63	197.5	159.0				
		10-10-62	413.0	120.3				
		1-31-63	351.7	181.6				
		7-26-61	107.5	212.5				
		8-30-61	106.6	213.4				
		9-19-61	105.9	214.1				
24S/25E-02H01 M	320.0	10-09-62	206.5	150.0	6001			
CONT.		2-08-63	197.5	159.0				
		10-10-62	413.0	120.3				
		1-31-63	351.7	181.6				
		7-26-61	107.5	212.5				
		8-30-61	106.6	213.4				
		9-19-61	105.9	214.1				

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
DELANO-EARLMART IRRIG DIST					
5-22-35					
24S/25E-02H01 M CONT.	320.0	10-25-61 11-30-61 12-19-61 1-24-62 2-26-62 3-28-62 4-24-62 5-21-62 6-21-62 7-24-62 8-23-62 9-18-62 10-16-62 11-19-62 12-17-62 1-23-63 2-26-63 4-25-63 5-20-63 6-27-63	104.8 103.2 103.2 106.1 105.5 105.9 105.6 106.6 106.6 106.6 109.1 103.6 103.6 103.7 101.4 103.8 104.9 105.1 105.3	215.2 216.8 217.7 213.9 214.5 214.1 214.4 213.4 213.8 214.9 216.4 216.4 216.5 216.6 216.3 218.2 219.1 218.7 218.7	6001
24S/25E-10A01 M	304.0	10-08-62 2-07-63	130.5	173.5	6001
24S/25E-33J01 M	291.5	10-09-62 1-31-63	83.7 79.5	207.8 212.0	6001
24S/26E-05R01 M	376.0	10-09-62 2-08-63	200.0 203.0	176.0 173.0	6001
24S/26E-20H01 M	378.0	10-11-62 2-08-63	209.0 219.0	169.0 159.0	6001
24S/26E-29R02 M	400.0	7-20-62 8-08-62 9-20-62 10-11-62 10-14-62 11-25-62 12-15-62 1-26-63 2-11-63 3-19-63 4-28-63	165.6 165.4 160.1 177.0 157.8 159.6 156.9 160.4 161.0 160.4 163.2 162.8	234.4 236.6 239.9 223.0 242.2 243.1 240.4 239.6 239.0 237.7 236.8 237.2	5000 6001 5000 6001 5000
DELANO-EARLMART IRRIG DIST					
5-22-35					
24S/26E-29R02 M CONT.	400.0	5-23-63 6-19-63	164.5 157.7	235.5 242.3	5000
24S/26E-32G01 M	396.0	10-11-62 2-11-63	153.5 152.5	242.5 243.5	6001
24S/26E-34F01 M	445.0	7-17-62 8-17-62 9-11-62 10-09-62 11-08-62 12-04-62 1-05-63 2-28-63 3-27-63 4-24-63 5-22-63 6-19-63	278.2 279.6 279.8 270.0 262.6 263.4 264.1 266.5 282.3 271.6 271.6 270.6*	166.8 165.4 165.2 175.0 182.4 181.6 180.9 178.5 162.7 173.4 173.4 174.4	5000
24S/27E-31P01 M	526.5	10-08-62 2-01-63	410.0 392.3	116.5 136.2	6001
25S/26E-01A02 M	505.5	7-17-62 8-17-62 9-11-62 10-09-62 11-08-62 12-05-62 1-05-63 2-28-63 3-27-63 4-24-63 5-22-63 6-19-63	421.7 433.5 421.9 375.5 360.6 359.7 364.7 348.0 453.0* 381.0 361.0 369.5*	83.8 71.0 83.6 130.0 144.7 145.8 140.8 151.3 154.3 124.3 124.3 135.6	5000
25S/26E-10B03 M	430.0	10-11-62 2-11-63	247.5 241.5	182.5 188.5	6001
25S/26E-16P01 M	388.0	7-21-61 8-17-61 9-21-61 10-20-61 11-16-61 12-22-61 1-18-62	111.8 113.0 112.5 112.3 112.6 113.1 114.3	276.2 276.0 275.5 275.7 275.4 274.9 273.7	5000

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
DELANO-EARLMART IRRIG DIST					
5-22.35					
25S/26E-16P01 M	388.0	2-22-62	115.3	272.7	5000
CONT.		3-15-62	116.1	271.9	
		4-13-62	117.1	270.9	
		5-18-62	116.5	271.5	
		6-21-62	116.8	271.2	
		7-20-62	116.0	272.0	
		8-08-62	114.8	273.2	
		9-20-62	113.6	274.4	
		10-14-62	113.2	274.8	
		11-25-62	113.6	274.4	
		12-13-62	113.1	274.9	
		1-25-63	115.0	273.0	
		2-22-63	116.2	271.8	
		3-19-63	116.6	271.4	
		4-28-63	119.5	268.5	
		5-23-63	122.0	266.0	
		6-19-63	118.6	269.4	
25S/27E-22H01 M	750.0	10-05-62	377.8	372.2	6001
		1-31-63	386.0	364.0	
SOUTHERN SAN JOAQUIN MUD					
5-22.36					
25S/24E-12A02 M	253.0	5-23-63	103.1	149.9	5000
CONT.		6-19-63	96.6	156.4	
25S/25E-06H01 M	259.0	10-09-62	80.2	178.8	6001
CONT.		1-29-63			
25S/25E-22D01 M	286.0	7-21-61	273.1	12.9	5000
		8-23-61	270.2	15.8	
		9-21-61	251.0	29.0	
		10-19-61	212.4*	73.6	
		11-16-61	189.9	96.1	
		12-21-61	164.3	121.7	
		1-18-62	152.6	133.4	
		2-22-62	137.5	148.5	
		3-15-62	134.8	151.2	
		4-13-62	150.3	135.7	
		5-18-62	149.7	136.3	
		6-21-62	171.8	114.2	
		7-19-62	184.9	101.1	
		8-08-62	198.8	87.2	
		9-20-62	204.6	81.4	
		10-14-62	185.1	100.9	
		11-25-62	159.1	126.9	
		12-15-62	148.4	137.6	
		1-26-63	141.5	144.5	
		2-22-63	134.8	151.2	
		3-18-63	133.3	152.7	
		4-28-63	163.1	122.9	
		5-23-63	168.9	117.1	
		6-19-63	155.5	130.5	
25S/25E-35P01 M	322.0	10-09-62	182.8	139.2	6001
		1-30-63	165.6	136.4	
25S/26E-28E01 M	394.0	7-21-61	207.7	186.3	5000
		8-17-61	193.8	200.2	
		9-21-61	190.2	203.8	
		10-20-61	188.7	205.3	
		11-16-61	185.9	208.1	
		12-22-61	184.3	209.7	
		1-18-62	182.2	211.8	
		2-22-62	179.9	214.1	
		3-15-62	179.0	215.0	
		4-13-62	180.3	213.7	
		5-18-62	180.6	213.4	
SOUTHERN SAN JOAQUIN MUD					
5-22.36					
25S/24E-12A02 M	253.0	7-21-61	120.2	132.8	5000
		8-23-61	117.5	135.5	
		9-21-61			
		10-19-61	105.3	147.7	
		11-16-61	99.3	153.7	
		12-21-61	92.5	160.5	
		1-18-62	89.2	163.8	
		2-22-62	86.2	166.8	
		3-15-62	85.3	167.7	
		4-13-62	94.4	158.6	
		5-18-62	94.8	158.2	
		6-21-62	104.2	148.8	
		7-19-62			
		8-08-62	111.4	141.6	
		9-20-62	108.7	144.3	
		10-14-62	99.0	154.0	
		11-25-62	95.1	157.9	
		12-15-62	88.9	164.1	
		1-26-63	93.0	160.0	
		2-22-63			
		3-18-63			
		4-28-63	97.0	156.0	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA		
SOUTHERN SAN JOAQUIN MUD							
5-22.36							
26S/26E-28E01 M	394.0	6-20-62	182.8	211.2	5000		
CONT.		7-19-62	□		5000		
		8-08-62	189.3	204.7			
		9-20-62	180.4	213.6			
		10-14-62	178.5	215.5			
		11-25-62	175.1	216.9			
		12-15-62	178.0	216.0			
		1-26-63	176.8	217.2			
		2-22-63	174.7	219.3			
		3-19-63	177.1	216.9			
		4-27-63	180.4	213.6			
		5-23-63	177.9	216.1			
		6-19-63					
		25S/26E-28H02 M	414.0	10-10-62		208.3	205.7
26S/25E-01C01 M	333.5	2-01-63	210.6	203.4	5000		
		7-21-61	131.7	201.8			
		8-22-61	132.0	201.5			
		9-21-61	131.4	202.1			
		10-20-61	130.5	203.0			
		11-16-61	128.7	204.8			
		12-21-61	127.4	206.1			
		1-18-62	126.5	207.0			
		2-22-62	125.2	208.3			
		3-15-62	124.6	208.9			
		4-13-62	125.1	208.4			
		5-18-62	125.4	208.1			
		6-21-62	125.7	207.8			
26S/26E-10R01 M	503.0	7-19-62	124.4	209.1	5000		
		8-09-62	126.7	206.8			
		9-20-62	131.1	202.4			
		10-14-62	129.1	204.4			
		11-25-62	124.4	209.1			
		12-15-62	123.7	209.8			
		1-26-63	123.0	210.5			
		2-22-63	122.2	211.3			
		3-19-63	122.5	211.0			
		4-27-63	123.1	210.4			
		5-23-63	123.7	209.8			
		6-19-63	122.7	210.8			
26S/26E-10R01 M	503.0	7-20-62	□		5000		
CONT.		8-08-62	□		5000		
		10-14-62	377.4	125.6			
SOUTHERN SAN JOAQUIN MUD							
5-22.36							
26S/26E-10R01 M	503.0	11-25-62	371.5	131.5	5000		
CONT.		12-15-62	380.6	126.4	5000		
		1-26-63	377.0	126.0			
		2-22-63	□				
		3-19-63	379.9	123.1			
		4-27-63	370.1	132.9			
		5-23-63	373.4	129.6			
		6-19-63	367.7	135.3			
		10-11-62	323.3	119.7			
		1-30-63	307.0	136.0			
		7-21-61	319.1	91.9			
		8-22-61	304.2	106.8			
26S/26E-29C01 M	411.0	9-21-61	298.1	112.9	5000		
		10-20-61	295.8	115.2			
		11-16-61	287.0	124.0			
		12-22-61	284.7	126.3			
		1-18-62	284.7	126.3			
		2-22-62	274.8	136.2			
		3-15-62	271.7	139.3			
		4-13-62	278.5	132.5			
		5-18-62	273.7	137.3			
		6-20-62	282.5	128.5			
		7-20-62	□				
		8-08-62	286.0	125.0			
		9-20-62	281.3	129.7			
26S/25E-15R01 M	352.3	10-14-62	276.0	135.0	8700		
		11-25-62	270.6	140.4			
		12-15-62	269.0	142.0			
		1-26-63	268.0	140.4			
		2-22-63	270.6	140.4			
		3-19-63	272.9	138.1			
		4-27-63	270.2	140.8			
		5-23-63	273.7	137.3			
		6-19-63	266.7	144.3			
		7-02-62	254.6*	97.7			
		7-16-62	256.6*	115.7			
		8-02-62	259.6*	92.7			
NORTH KERN WATER STORAGE DIST							
5-22.37							
26S/25E-15R01 M	352.3	7-02-62	254.6*	97.7	8700		
CONT.		7-16-62	256.6*	115.7	8700		
		8-02-62	261.6*	92.7			
		9-11-62	237.6*	114.7			
		1-02-63	197.6*	134.7			

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
NORTH KERN WATER STORAGE DIST					
265/25E-15R01 M	352.3	1-15-63	230.6*	121.7	8700
CONT.		2-05-63	202.6*	149.7	
		2-15-63	197.6*	154.7	
		3-01-63	197.6*	154.7	
		3-26-63	230.6*	121.7	
		3-26-63	243.6*	108.7	
		6-17-63	202.6*	149.7	
		7-05-62	254.1*	82.5	
		7-11-62	284.1*	52.5	
		7-16-62	283.1*	53.5	
		8-13-62	262.1*	74.5	
		8-29-62	291.1*	45.5	
		9-11-62	254.1*	82.5	
265/25E-31R01 M	336.6	10-15-62	216.1*	122.5	8700
		1-02-63	214.1*	122.5	
		1-15-63	222.1*	114.5	
		2-05-63	234.1*	102.5	
		2-15-63	199.1*	137.5	
		3-01-63	196.1*	140.5	
		6-17-63	206.1*	130.5	
		7-02-62	276.0*	116.0	
		7-16-62	309.0*	83.0	
		8-02-62	269.0*	123.0	
		8-29-62	313.0*	79.0	
		9-11-62	269.0*	123.0	
		1-02-63	277.0*	115.0	
265/26E-20R01 M	392.0	1-15-63	244.0	148.0	
		2-01-63	243.0*	149.0	
		2-15-63	242.0*	150.0	
		3-01-63	234.0*	158.0	
		6-17-63	237.0*	155.0	
		10-03-62	100.7	300.3	6001
		1-28-63	96.5	304.5	
		7-21-61	121.4	272.6	
		8-23-61	124.6	269.4	
		9-20-61	124.2	269.8	
		10-19-61	125.5	268.5	
		11-16-61	125.8	268.2	
		12-21-61	127.5	266.7	
275/25E-01A01 M	401.0	1-18-62	128.4	265.6	
		2-22-62	130.0	264.0	
		7-21-61	121.4	272.6	
		8-23-61	124.6	269.4	
		9-20-61	124.2	269.8	
		10-19-61	125.5	268.5	
		11-16-61	125.8	268.2	
		12-21-61	127.5	266.7	
		1-18-62	128.4	265.6	
		2-22-62	130.0	264.0	
		7-21-61	121.4	272.6	
		8-23-61	124.6	269.4	
		9-20-61	124.2	269.8	
275/25E-01N01 M	394.0	10-19-61	321.7	125.1	5000
		11-16-61	318.2	128.6	
		12-20-61	301.9	144.9	
		1-13-62	341.5*	105.3	8700
		1-18-62	341.5*	105.3	5000
		2-22-62	291.5	155.3	
		2-26-62	291.5*	155.3	
		3-07-62	296.5*	150.3	8700
		3-15-62	290.1	156.7	5000
		4-12-62	290.1	156.7	
		5-18-62	294.5	152.3	
		6-20-62	294.5	152.3	
		6-21-62	353.5*	93.3	8700
275/25E-01N01 M	394.0	7-09-62	357.5*	89.3	5000
		7-19-62	322.5*	124.3	8700
		7-19-62	322.5*	124.3	
		8-08-62	362.5*	84.3	5000
		8-14-62	328.5*	118.3	8700
		9-04-62	328.5*	118.3	
		9-13-62	321.5*	125.3	
		10-03-62	270.0*	146.0	6001
		1-30-63	257.3	158.7	
		7-21-61	325.5*	121.3	5000
		8-22-61	325.5*	121.3	
		9-15-61	322.3	124.5	8700
		9-20-61	321.7	125.1	5000
		10-19-61	318.2	128.6	
		11-16-61	301.9	144.9	
		12-20-61	341.5*	105.3	
		1-13-62	341.5*	105.3	8700
		1-18-62	341.5*	105.3	5000
		2-22-62	291.5	155.3	
		2-26-62	291.5*	155.3	
		3-07-62	296.5*	150.3	8700
		3-15-62	290.1	156.7	5000
		4-12-62	290.1	156.7	
		5-18-62	294.5	152.3	
		6-20-62	294.5	152.3	
		6-21-62	353.5*	93.3	8700
		7-09-62	357.5*	89.3	5000
		7-19-62	322.5*	124.3	8700
		7-19-62	322.5*	124.3	
		8-08-62	362.5*	84.3	5000
		8-14-62	328.5*	118.3	8700
		9-04-62	328.5*	118.3	
		9-13-62	321.5*	125.3	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA		
NORTH KERN WATER STORAGE DIST							
27S/26E-20D01 M	446.8	9-20-62	303.2	143.6	5000		
CONT.		10-14-62	303.2	143.6	5000		
		11-25-62	274.8	172.0	8700		
		12-15-62	299.5*	147.3	8700		
		1-07-63	236.5*	210.3	5000		
		1-21-63	293.8	153.0	8700		
		1-26-63	301.5*	145.3	8700		
		2-08-63	296.5*	150.3	5000		
		2-20-63	298.5*	148.3	8700		
		2-21-63	298.5*	148.3	8700		
		3-07-63	351.5*	95.3	8700		
		3-18-63	351.5*	95.3	8700		
		4-27-63	295.6	151.2	8700		
		5-23-63	295.6	151.2	8700		
		6-19-63	349.5*	97.3	8700		
		6-21-63	349.5*	97.3	8700		
27S/26E-20E01 M	435.7	7-09-62	304.6*	131.1	8700		
		7-12-62	304.6*	131.1	8700		
		7-19-62	304.6*	131.1	8700		
		8-14-62	304.6*	131.1	8700		
		9-04-62	304.6*	131.1	8700		
		9-13-62	320.6*	115.1	8700		
		1-07-63	321.6*	114.1	8700		
		1-21-63	281.6*	154.1	8700		
		2-08-63	280.6*	155.1	8700		
		2-20-63	282.6*	153.1	8700		
		3-07-63	331.6*	104.1	8700		
		6-21-63	331.6*	104.1	8700		
		10-04-62	418.6	108.4	6001		
		1-28-63	402.4	124.6	6001		
		27S/27E-30H02 M	527.0	7-02-62	186.1*	175.0	8700
28S/25E-13L01 M		7-16-62	204.1*	157.0	8700		
		8-01-62	206.1*	155.0	8700		
		8-13-62	199.1*	162.0	8700		
		9-06-62	196.1*	165.0	8700		
		1-02-63	192.1*	169.0	8700		
		1-15-63	194.1*	167.0	8700		
		2-01-63	186.1*	175.0	8700		
		2-15-63	187.1*	174.0	8700		
		3-01-63	186.1*	175.0	8700		
		4-02-63	205.1*	156.0	8700		
		6-16-63	208.1*	153.0	8700		
		NORTH KERN WATER STORAGE DIST					
		28S/26E-21H01 M	388.0	8-22-61	171.6	216.4	5000
				9-20-61	169.0	219.0	5000
				10-18-61	169.3	218.7	5000
11-15-61	168.9			219.1	5000		
12-21-61	168.3			219.7	5000		
1-17-62	167.4			220.6	5000		
2-22-62	165.3			222.7	5000		
3-15-62	165.9			223.1	5000		
4-12-62	164.8			223.2	5000		
5-17-62	162.1			225.9	5000		
6-20-62	162.5			225.5	5000		
7-19-62	164.0			224.0	5000		
8-08-62	165.5			222.5	5000		
9-19-62	167.3			220.7	5000		
10-14-62	167.6			220.4	5000		
28S/27E-21F01 M	611.0			10-04-62	220.3	219.7	5000
		1-26-63	168.3	220.7	5000		
		2-21-63	167.3	220.7	5000		
		3-18-63	168.0	220.0	5000		
		4-27-63	166.6	221.4	5000		
		5-22-63	166.7	221.3	5000		
		6-19-63	166.4	221.6	5000		
		10-04-62	DRY	DRY	5000		
		1-28-63	DRY	DRY	5000		
SHAFTER-WASCO IRRIGATION DIST							
27S/24E-01L02 M	322.0	7-21-61	277.1	44.9	5000		
		8-23-61	285.0	37.0	5000		
		9-20-61	238.1	83.9	5000		
		10-19-61	227.9	94.1	5000		
		11-16-61	204.5	117.5	5000		
		12-21-61	180.2	141.8	5000		
		1-18-62	179.7	142.3	5000		
		2-22-62	170.9	151.1	5000		
		3-15-62	172.3	149.7	5000		
		4-12-62	207.1	111.9	5000		
		5-18-62	210.2	82.3	5000		
		6-21-62	239.7	58.6	5000		
		7-19-62	263.4	58.6	5000		
		8-08-62	263.7	58.6	5000		
		9-20-62	237.9	84.1	5000		
		10-14-62	215.0	107.0	5000		

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SHAFTER-WASCO IRRIGATION DIST					
5-22-38					
27S/24E-01L02 M	322.0	11-25-62	188.6	133.4	6001
CONT.		12-15-62	186.5	135.5	
		1-26-63	199.9	122.1	
		2-21-63	207.1	114.9	
		3-19-63	209.5	112.5	
		4-28-63	205.2	116.8	5000
		5-22-63	211.0	111.0	
		6-19-63	207.9	114.1	
27S/24E-35C01 M	316.0	7-06-62	221.8*	94.2	
		7-18-62	234.8*	81.2	
		8-15-62	232.8*	83.2	8700
		8-31-62	239.8*	76.2	
		9-14-62	220.8*	95.2	
		1-04-63	190.8*	125.2	
		1-18-63	191.8*	124.2	
		2-07-63	190.8*	125.2	5000
		2-19-63	185.8*	130.2	
		3-05-63	190.8*	125.2	
		6-19-63	228.8*	81.2	
27S/25E-28A01 M	375.0	7-21-61	290.4	84.6	
		8-22-61	290.4	126.5	5000
		9-20-61	248.5	139.9	
		10-19-61	235.1	147.4	
		11-16-61	227.6	163.2	
		12-21-61	211.8	160.5	5000
		1-17-62	214.5	170.4	
		2-22-62	204.6	148.3	
		3-15-62	226.7	148.1	
		4-12-62	226.9	119.6	
		5-18-62	255.4	115.5	5000
		6-20-62	259.5	115.2	
		7-19-62	259.8	135.4	
		8-08-62	239.6	148.6	
		9-20-62	226.4	160.3	
		10-14-62	214.7	159.3	5000
		11-25-62	215.7	146.8	
		12-15-62	215.7	143.9	
		1-26-63	228.2	231.1	
		2-21-63	231.1	143.9	
		3-18-63	231.1	143.9	5000
		4-17-63	231.1	143.9	
		5-22-63	231.1	143.9	
		6-19-63	231.1	143.9	
		6-19-63	231.1	143.9	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA		
KERN RIVER DELTA AREA							
5-22+0							
28S/24E-23D01 M	309.0	7-19-62	182.6	126.4	5000		
CONT.		8-08-62	183.9	125.1			
		9-20-62	182.6	126.4			
		10-14-62	179.7	129.3			
		11-25-62	178.1	130.9			
		12-15-62	175.9	133.1			
		1-26-63	173.0	136.0			
		2-21-63	170.9	138.1			
		3-18-63	169.4	139.6			
		4-28-63	173.5	135.5			
		5-22-63	172.7	136.3			
		6-19-63	180.9	128.1			
		8-15-62	148.0	178.0	6001		
		9-18-62	149.0	177.0			
		10-18-62	151.0	175.0			
		11-15-62	151.5	174.5			
		12-17-62	154.0	172.0			
		1-28-63	143.0	183.0			
6-14-63	146.0	180.0					
7-02-62	161.1*	187.9	8700				
7-16-62	162.1*	186.9					
8-01-62	163.1*	185.9					
8-14-62	164.1*	184.9					
9-06-62	149.1*	193.9					
10-08-62	155.1	193.9	6001				
1-02-63	144.1*	204.9	8700				
1-15-63	142.1*	206.9					
2-01-63	144.1*	204.9					
2-15-63	144.1*	204.9					
3-01-63	156.1*	192.9					
5-03-63	151.1*	197.9					
6-16-63	150.1*	198.9					
29S/25E-12M01 M	330.0	10-08-62	140.6	189.4	5120		
CONT.		2-01-63					
		7-20-61	126.4	203.6	5000		
		8-22-61	140.3	189.7			
		9-20-61	136.3	193.7			
		10-19-61	134.8	195.2			
		11-15-61	132.4	197.6			
		12-21-61	130.3	199.7			
		1-17-62	130.4	199.6	5000		
		2-21-62	128.2	201.8			
		3-15-62	127.8	202.2			
		4-12-62	132.7	197.3			
		5-17-62	134.5	195.5			
		6-20-62	139.3	190.7			
		7-19-62	143.3	186.7			
		8-08-62	145.1	184.9			
		9-20-62	144.4	185.6			
		10-14-62	141.4	188.6			
		11-18-62	140.5	189.5			
		12-14-62	135.5	194.5			
		1-25-63	137.8	192.2			
		2-20-63	138.9	191.1			
		3-17-63	140.9	189.1			
		4-28-63	137.8	192.2			
		5-22-63	142.0	188.0			
		6-19-63	145.1	184.9			
29S/26E-29L01 M	349.0	7-02-62	161.1*	187.9	8700		
CONT.		7-16-62	162.1*	186.9			
		8-01-62	163.1*	185.9			
		8-14-62	164.1*	184.9			
		9-06-62	149.1*	193.9			
		10-08-62	155.1	193.9	6001		
		1-02-63	144.1*	204.9	8700		
		1-15-63	142.1*	206.9			
		2-01-63	144.1*	204.9			
		2-15-63	144.1*	204.9			
		3-01-63	156.1*	192.9			
		5-03-63	151.1*	197.9			
		6-16-63	150.1*	198.9			
		29S/25E-12M01 M	330.0	10-08-62	140.6	189.4	5120
		CONT.		2-01-63			
				7-20-61	126.4	203.6	5000
				8-22-61	140.3	189.7	
				9-20-61	136.3	193.7	
				10-19-61	134.8	195.2	
				11-15-61	132.4	197.6	
				12-21-61	130.3	199.7	
				1-17-62	130.4	199.6	5000
				2-21-62	128.2	201.8	
				3-15-62	127.8	202.2	
				4-12-62	132.7	197.3	
				5-17-62	134.5	195.5	
6-20-62	139.3			190.7			
7-19-62	143.3			186.7			
8-08-62	145.1			184.9			
9-20-62	144.4			185.6			
10-14-62	141.4			188.6			
11-18-62	140.5			189.5			
12-14-62	135.5			194.5			
1-25-63	137.8			192.2			
2-20-63	138.9			191.1			
3-17-63	140.9			189.1			
4-28-63	137.8			192.2			
5-22-63	142.0			188.0			
6-19-63	145.1			184.9			
29S/25E-10L01 M	350.0	10-08-62	115.1	234.9	5120		
CONT.		2-01-63	107.5	242.5			
		7-20-61	75.1	306.9	5000		
		8-22-61	79.2	302.8			
		9-20-61	92.4*	289.6			
		10-18-61	88.4	293.6			
		11-15-61	85.8	296.2			
		12-20-61	84.6	297.4			
		1-17-62	86.2	295.8			
		2-20-62	83.2	298.8			
		3-15-62	84.6	297.4			
		4-12-62	86.8	295.2			
		5-17-62	80.9	301.1			
		6-20-62	78.8	303.2			
		7-19-62	75.9	306.1			
		8-08-62	74.1	307.9			
		9-19-62	76.2	305.8			
		10-13-62	71.2	310.8			
		11-25-62	78.1	303.9			
		12-15-62	76.6	305.4			
		1-26-63	81.8	300.2			
		2-21-63	85.6	296.4			
		3-18-63	85.0	297.0			
		4-27-63	86.8	295.2			
		5-22-63	88.1	293.9			
		6-16-63	90.5	291.5			

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
KERN RIVER DELTA AREA					
29S/27E-34N01 M	385.0	7-19-61	72.0	313.0	5000
		8-22-61	74.6	310.4	
		9-20-61	76.1	308.9	
		10-18-61	77.4	307.6	
		11-15-61	78.3	306.7	
		12-20-61	79.3	305.7	
		1-17-62	80.1	304.9	
		2-21-62	80.7	304.3	
		3-15-62	81.3	303.7	
		4-12-62	82.1	302.9	
		5-17-62	82.3	302.7	
		6-20-62	82.1	302.9	
		7-17-62	81.5	303.5	
		8-08-62	81.1	303.9	
		9-20-62	79.4	305.6	
		10-13-62	78.5	305.3	
		11-18-62	77.5	307.5	
		12-14-62	68.6	316.4	
		1-25-63	76.8	308.2	
		2-20-63	77.5	307.5	
		3-17-63	78.4	306.6	
		4-27-63	78.2	305.8	
		5-22-63	80.4	304.6	
		6-19-63	81.8	303.2	
30S/25E-03H01 M	319.3	7-06-62	124.7*	194.6	8700
		7-20-62	128.7*	190.6	
		7-25-62	107.7	211.6	
		8-06-62	125.7*	193.6	
		8-21-62	129.7*	189.6	
		9-07-62	128.7*	190.6	
		1-14-63	94.7*	224.6	
		1-23-63	94.7*	224.6	
		2-07-63	94.7*	224.6	
		2-20-63	88.7*	230.6	
		3-07-63	89.7*	229.6	
		5-21-63	83.7*	235.6	
		5-21-63	106.7*	212.6	
		6-25-63	132.7*	186.6	
30S/25E-22D01 M	308.5	7-06-61	52.5	256.0	4640
		8-02-61	52.6	255.9	
		9-06-61	52.9	255.6	
KERN RIVER DELTA AREA					
30S/25E-22D01 M	308.5	10-03-61	52.6	255.9	4640
		11-02-61	52.4	256.1	
		12-02-61	52.1	256.4	
		1-02-62	52.4	256.1	
		2-02-62	52.4	257.3	
		3-02-62	52.6	255.9	
		4-03-62	53.9	254.6	
		5-01-62	54.6	253.9	
		6-03-62	54.8	253.7	
		7-04-62	55.8	252.7	
		8-04-62	56.3	252.2	
		9-05-62	56.1	252.4	
		10-04-62	55.6	252.9	
		11-02-62	55.4	253.1	
		12-08-62	55.5	253.0	
		1-02-63	55.0	252.9	
		2-05-63	56.7	252.5	
		3-02-63	56.0	251.8	
		4-02-63	57.2	251.5	
		6-04-63	58.9	249.6	
30S/26E-16J01 M	339.1	10-05-62	53.7	285.4	5120
		1-30-63	57.3	281.8	
30S/26E-22P02 M	338.0	7-19-61	68.3	269.7	5000
		8-22-61	70.8	267.2	
		9-19-61	71.1	266.9	
		10-17-61	63.9	274.1	
		11-14-61	65.5	272.5	
		12-20-61	58.1	279.9	
		1-16-62	57.5	280.5	
		2-21-62	56.7	281.3	
		3-14-62	56.9	281.1	
		4-11-62	62.5	275.5	
		5-16-62	63.7	274.3	
		6-19-62	69.3	268.7	
		7-18-62	69.0	269.0	
		8-08-62	74.9	263.1	
		9-19-62	66.0	272.0	
		10-13-62	68.4	269.6	
		11-18-62	62.5	275.5	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
KERN RIVER DELTA AREA					
5-22.40					
30S/26E-22P02 M CONT.	338.0	12-14-62	63.4	274.6	5000
		1-25-63	62.9	275.1	5000
		2-20-63	63.3	274.7	5000
		3-17-63	63.9	274.1	5000
		4-27-63	68.6	269.4	5000
		5-22-63	70.9	267.1	5000
30S/26E-27A01 M	338.7	6-19-63	75.9	262.1	5000
		7-06-62	84.7*	254.0	8700
		7-23-62	83.7*	255.0	8700
		8-07-62	84.7*	254.0	8700
		8-22-62	84.7*	254.0	8700
		8-27-62	82.7*	256.0	8700
30S/27E-03G01 M	384.2	9-10-62	73.7*	265.0	8700
		1-11-63	72.7*	266.0	8700
		1-18-63	71.7*	267.0	8700
		2-07-63	69.7*	269.0	8700
		2-20-63	82.7*	256.0	8700
		3-06-63	88.7*	250.0	8700
30S/27E-28A02 M	359.0	6-24-63	84.7*	254.0	8700
		7-09-62	125.2*	259.0	8700
		7-20-62	127.2*	257.0	8700
		8-07-62	111.2*	273.0	8700
		8-20-62	108.2*	276.0	8700
		9-08-62	106.2*	276.0	8700
30S/27E-28A01 M	354.4	10-05-62	95.7	263.3	5120
		1-31-63	94.0	265.0	5120
		10-01-62	105.8	248.6	6001
		1-29-63	106.1	252.9	5000
		7-18-62	107.5	251.5	5000
		8-07-62	102.9	256.2	5000
30S/28E-34R02 M	359.0	9-19-62	96.8	260.2	5000
		10-13-62	95.0	264.0	5000
		11-18-62	94.9	264.1	5000
		1-14-62	94.9	264.1	5000
		1-25-63	93.5	265.3	5000
		2-20-63	93.2	265.8	5000
30S/27E-28H01 M	310.0	3-17-63	97.2	261.8	5000
		7-19-61	80.1	229.9	5000
		8-22-61	80.1	229.9	5000
		9-19-61	80.1	229.9	5000
		10-17-61	70.7	239.3	5000
		11-14-61	65.4	244.6	5000
30S/27E-28H01 M	310.0	12-20-61	60.4	249.6	5000
		1-16-62	60.4	249.6	5000
		2-21-62	60.4	249.6	5000
		3-14-62	60.4	249.6	5000
		4-11-62	60.4	249.6	5000
		5-16-62	67.3	242.7	5000
30S/27E-28H01 M	310.0	6-19-62	67.3	242.7	5000
		7-18-62	67.3	242.7	5000
		8-07-62	67.3	242.7	5000
		9-19-62	74.9	235.1	5000
		10-13-62	69.9	240.1	5000
		11-18-62	64.5	245.5	5000

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA	STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
KERN RIVER DELTA AREA						EDISON-MARICOPA AREA					
5-22.40						5-22.41					
31S/27B-28H01 M CONT.	310.0	1-26-63 2-19-63 3-17-63 4-27-63 5-21-63 6-18-63	□ □ □ □ □ □	236.7	5000	29S/29E-33N01 M	578.0	10-03-62 1-30-63	449.0 436.1	129.0 141.9	6001
31S/27E-28J01 M	312.1	10-03-62 1-30-63	52.1 65.2	260.0 248.9	5120	30S/28E-02R01 M	410.0	10-03-62 1-29-63	173.2 174.0	236.8 236.0	6001
31S/28E-17P02 M	321.1	10-02-62	□		6001	30S/28E-10N01 M	372.0	7-20-61 8-22-61 9-20-61 10-18-61 11-15-61 12-20-61 1-17-62 2-21-62 3-15-62 4-11-62 5-17-62 6-19-62 7-18-62 8-07-62 9-19-62 10-13-62 11-18-62 12-14-62 1-25-63 2-20-63 3-17-63 4-27-63 5-22-63 6-19-63	146.5* 34.5 34.8 33.9 33.2 32.5 33.4 34.5 36.1 38.5 38.1 37.0 36.4 34.9 35.0 34.0 33.0 34.7 33.3 36.0 39.3 41.8 38.8	225.5 331.5 337.2 338.1 338.8 338.5 338.6 337.5 337.1 335.9 333.5 333.9 335.0 335.6 337.1 337.0 338.0 338.0 337.3 336.5 336.0 332.7 332.2 333.2	5000
31S/28E-30M01 M	314.7	7-11-62 7-23-62 8-08-62 8-22-62 9-11-62 9-25-62 10-08-62 1-21-63 2-11-63 2-21-63 3-11-63 6-25-63	142.0* 86.0 140.0* 140.0* 85.0 109.0* 120.0* 127.0* 70.0* 65.0* 139.0* 80.0	172.7 228.7 174.7 229.7 205.7 194.7 187.7 244.7 249.7 175.7 234.7	8700	32S/26E-36G01 M	378.0	10-01-62 1-29-63	174.2 211.2	203.8 166.8	5120
32S/27E-18E01 M	292.6	7-11-62 7-26-62 8-08-62 9-23-62 9-10-62 1-08-63 1-28-63 2-11-63 2-21-63 3-08-63 6-26-63	190.3* 143.3 192.3* 192.3* 153.3 125.3* 184.3* 189.3* 168.3* 168.3* 178.3*	102.3 149.3 100.3 197.3 139.3 167.3 108.3 105.3 124.3 124.3 114.3	8700	30S/28E-10N04 M	372.0	7-20-61 8-22-61 9-20-61 10-18-61 11-15-61 12-20-61 1-17-62 2-21-62 3-15-62 4-11-62	146.3 149.1 149.8 141.3 138.3 135.6 134.8 133.2 133.6 139.6	225.7 222.9 222.2 230.7 233.7 236.4 237.2 238.8 238.4 232.4	5000
32S/28E-04A01 M	303.0	10-01-62 1-30-63	□ □		6001						

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
EDISON-MARICOPA AREA					
5-22.41					
30S/28E-10N04 M CONT.	372.0	5-17-62	142.2	229.8	5000
		6-19-62	147.1	224.9	
		7-18-62	153.8	218.2	
		8-07-62	156.4	215.6	
		9-19-62	153.6	218.4	
		10-13-62	149.2	222.8	
		11-18-62	145.8	226.2	
		12-14-62	144.2	227.8	
		1-25-63	143.4	228.6	
		2-20-63	142.5	229.5	
		3-17-63	143.8	228.2	
		4-27-63	146.8	225.2	
		5-22-63	152.6	219.4	
		6-18-63	152.9	219.1	
30S/29E-05F01 M	515.0	10-02-62	335.1	179.9	6001
		1-30-63	331.7	183.3	
30S/29E-26A01 M	628.0	10-02-62	467.0	161.0	6001
		1-28-63	455.5	172.5	
30S/29E-31R01 M	421.0	7-18-62	131.9	289.1	5000
		8-07-62	131.5	289.5	
		9-19-62	130.3	290.7	
		10-13-62	131.3	289.7	
		11-18-62	131.0	290.0	
		12-14-62	131.7	289.3	
		1-25-63	130.7	290.3	
		2-20-63	130.5	290.5	
		3-17-63	130.5	289.9	
		4-27-63	131.1	289.9	
		5-22-63	134.2	286.8	
		6-18-63	130.2	290.8	
30S/30E-20R01 M	791.5	10-04-62	190.7	600.8	6001
		1-29-63	183.5	608.0	
31S/29E-09A01 M	472.5	10-03-62	297.9	174.6	6001
		1-30-63	297.9		
31S/29E-29A01 M	400.0	10-02-62	153.1	246.9	6001
		1-31-63	153.1		
EDISON-MARICOPA AREA					
5-22.41					
31S/30E-18B01 M	513.5	7-20-61	323.6	189.9	5000
		8-22-61	336.0	177.5	
		9-20-61	336.1	177.4	
		10-18-61	337.4	176.1	
		11-14-61	336.8	176.7	
		12-20-61	334.5	179.0	
		1-17-62	336.4	177.1	
		2-21-62	333.1	180.4	
		3-14-62	334.5	179.0	
		4-11-62	335.8	177.7	
		5-17-62	337.8	175.7	
		6-20-62	338.2	175.3	
		7-18-62	341.3	172.2	
		8-07-62	342.6	170.9	
		9-19-62	342.6		
		10-13-62	342.6		
31S/30E-21G01 M	536.0	10-01-62	316.1	208.5	6001
		1-31-63	316.1	204.5	5120
32S/25E-35N02 M	442.5	10-01-62	234.0	208.5	
		1-28-63	236.0		
32S/28E-23R01 M	386.7	10-01-62	305.0	81.7	6001
		1-30-63	305.0		
32S/29E-16R02 M	470.0	7-18-62	314.7*	155.3	5000
		8-07-62	316.1	152.3	
		9-19-62	317.5	152.3	
		10-13-62	317.0	153.0	
		11-18-62	317.4	152.6	
		12-14-62	315.4	154.6	
		1-25-63	314.0	156.0	
		2-20-63	313.4	156.6	
		3-17-63	314.1	155.9	
		4-27-63	315.4	154.6	
		5-21-63	316.2	153.8	
		6-18-63	316.5	153.5	
32S/29E-19H02 M	416.0	7-20-61	160.4*	255.6	5000

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
EDISON-MARICOPA AREA					
5-22.41					
32S/29E-19H02 M CONT.	416.0	8-22-61	166.5	249.5	5000
		9-20-61	153.0	263.0	
		10-18-61	151.2	264.8	
		11-15-61	147.4	268.6	
		12-20-61	146.1	269.9	
		1-17-62	145.5	270.5	
		2-21-62	141.8	274.2	
		3-14-62	143.8	272.2	
		4-11-62	146.7	269.3	
		5-17-62	152.3	263.7	
		6-20-62	171.7	244.3	
		7-18-62	182.6	233.4	
		8-07-62	189.5	228.5	
		9-19-62	189.0	227.0	
		10-13-62	173.8	242.2	
		11-18-62	170.2	245.8	
		12-14-62	177.4	238.6	
		1-25-63	177.1	238.9	
		2-20-63	178.6	237.4	
		3-17-63	181.4	234.6	
		4-27-63	182.3	233.7	
		5-21-63	189.4	226.6	
		6-18-63	184.2	231.8	
32S/29E-19H03 M	416.0	7-20-61	365.1	50.9	5000
		8-22-61	355.3	60.7	
		9-20-61	322.3	93.7	
		10-18-61	303.7	112.3	
		11-15-61	303.5	112.5	
		12-20-61	292.1	123.9	
		1-17-62	291.4	124.6	
		2-21-62	282.1	133.9	
		3-14-62	276.3	139.7	
		4-11-62	310.1	105.9	
		5-17-62	314.6	101.4	
		6-20-62	338.5	77.5	
		7-18-62	357.3	58.7	
		8-07-62	363.8	52.2	
		9-19-62	337.9	78.1	
		10-13-62	321.0	95.0	
		11-18-62	296.8	119.2	
		12-14-62	295.3	120.7	
		1-25-63	295.7	120.3	
		2-20-63	301.5	114.5	
		3-17-63	315.1	100.9	
EDISON-MARICOPA AREA					
5-22.41					
32S/29E-19H03 M CONT.	416.0	4-27-63	314.0	102.0	5000
		5-21-63	325.8	90.2	
		6-18-63	338.3	77.7	
32S/29E-21P01 M	473.0	7-18-62	212.3	260.7	5000
		8-07-62	213.0	260.0	
		9-19-62	210.2	262.8	
		10-13-62	209.0	264.0	
		11-18-62	208.7	264.3	
		12-14-62	207.5	265.5	
		1-25-63	208.0	265.0	
		2-20-63	208.4	264.6	
		3-17-63	209.5	263.5	
		4-27-63	216.6	256.4	
		5-21-63	217.7	255.3	
		6-18-63	257.0	216.0	6001
11N/18W-06P01 S	657.0	10-03-62	□	□	
		1-29-63	□	□	
11N/18W-28D01 S	850.0	10-04-62	132.7	717.3	6001
		1-29-63	97.7	752.3	
11N/19W-04H01 S	575.9	10-03-62	□	□	6001
		1-30-63	□	□	
11N/19W-07R03 S	675.0	8-22-61	446.0	229.0	5000
		9-20-61	442.3	232.7	
		10-18-61	441.9	233.1	
		11-15-61	439.1	235.9	
		12-20-61	438.2	236.8	
		1-17-62	438.7	236.3	
		2-21-62	437.4	237.6	
		3-14-62	440.1	234.9	
		4-11-62	440.0	234.4	
		5-17-62	442.1	232.9	
		6-20-62	□	□	
		7-18-62	□	□	
		8-07-62	455.1	219.9	
		9-19-62	451.2	223.8	
		10-13-62	450.1	224.9	
		11-18-62	443.6	231.4	
		12-14-62	448.2	226.8	
		1-25-63	449.7	225.3	
		2-20-63	449.7	225.3	
		3-17-63	455.2	219.8	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
EDISON-MARICOPA AREA					
11N/19W-07R03 S	675.0	5-21-63	456.9	218.1	5000
CONT.		6-18-63	458.8	215.2	
11N/20W-07Q01 S	452.3	7-10-62	□	- 180.6	8700
		7-23-62	632.9*	- 180.6	
		7-26-62	632.9*	- 180.6	
		8-09-62	632.9*	- 180.6	
		9-05-62	629.9*	- 177.6	
		9-12-62	620.9*	- 168.6	
		10-24-62	565.9*	- 113.6	
		1-10-63	375.9*	76.4	
		1-22-63	567.9*	- 115.6	
		2-12-63	□		
		2-25-63	□		
		3-11-63	□		
		4-03-63	590.9*	- 138.6	
		4-24-63	549.9*	- 97.6	
		5-15-63	552.9*	- 100.6	
		6-28-63			
11N/20W-18F01 S	484.7	10-02-62	349.5	135.2	6001
		1-28-63	344.5	140.2	
11N/20W-24A01 S	730.2	7-10-62	□		8700
		7-23-62	498.6	231.6	
		7-24-62	505.6*	224.6	
		7-26-62	506.6*	223.6	
		8-09-62	497.6*	232.6	
		9-05-62	498.6*	231.6	
		9-12-62	497.6*	232.6	
		10-24-62	497.6*	233.6	
		1-10-63	496.6*	233.6	
		1-22-63	496.6*	232.6	
		2-12-63	497.6*	231.6	
		2-25-63	498.6*	225.6	
		3-11-63	504.6*	227.6	
		4-24-63	502.6*	224.6	
		5-15-63	505.6*		
		6-28-63	□		
11N/21W-05M01 S	515.9	7-10-62	□		8700
		7-23-62	□		
		8-09-62	□		
		9-05-62	□		
		9-12-62	478.1	37.8	
EDISON-MARICOPA AREA					
11N/21W-05M01 S	515.9	10-25-62	468.1	47.8	8700
CONT.		1-10-63	□		
		1-22-63	□		
		2-25-63	□		
		3-11-63	□		
		4-24-63	□		
		5-15-63	□		
		6-28-63	□		
11N/22W-04H01 S	529.0	7-10-62	□		8700
		7-23-62	□		
		8-09-62	□		
		9-05-62	458.3	70.7	
		9-12-62	449.3	79.7	
		10-25-62	□		
		1-10-63	□		
		1-22-63	448.3	80.7	
		2-04-63	473.3*	55.7	
		2-25-63	□		
		3-11-63	□		
		4-24-63	□		
		5-15-63	452.3	76.7	
		6-28-63	□		
11N/23W-12P01 S	747.0	10-04-62	□		5120
		1-28-63	□		
12N/20W-31R01 S	363.0	10-01-62	238.8	124.2	6001
		1-28-63	237.2	125.8	
12N/20W-36Q02 S	509.0	10-02-62	194.0	315.0	6001
		1-29-63	192.5	316.5	
12N/21W-29N01 S	423.3	10-03-62	315.5	107.8	5120
		1-29-63	320.0	103.3	
12N/23W-28P01 S	498.0	10-01-62	271.9	226.1	5120
		1-29-63	275.0	223.0	
BUENA VISTA WATER STORAGE DIST					
27S/22E-16B01 M	238.0	7-17-62	84.9	153.1	5000
		8-07-62	90.5	147.5	
		9-18-62	96.5	141.5	
		10-20-62	81.9	156.1	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
BUENA VISTA WATER STORAGE DIST					
5-22-42					
27S/22E-16B01 M	238.0	11-23-62	72.8	165.2	5000
CONT.		12-20-62	69.1	168.9	
		1-22-63	78.2	159.8	
		2-19-63			
		3-18-63	□		
		4-20-63	77.3	160.7	
		5-21-63	78.8	159.2	
		6-18-63	73.0	165.0	
27S/22E-21F02 M	240.0	10-10-62	39.8	200.2	5120
		2-05-63	44.0	196.0	
27S/22E-32H01 M	241.0	7-17-62	83.4	157.6	5000
		8-07-62	86.8	154.2	
		9-18-62	103.4	137.6	
		10-20-62	99.2	141.8	
		11-23-62	93.0	148.0	
		12-20-62	96.6	144.4	
		1-22-63	86.0	155.0	
		2-19-63	82.2	158.8	
		3-18-63	79.8	161.2	
		4-20-63	98.5	142.5	
		5-21-63	93.0	148.0	
		6-18-63	90.7	150.3	
28S/22E-09D01 M	245.0	7-19-61	39.9	205.1	5000
		8-21-61	41.9	203.1	
		9-19-61	38.5	206.5	
		10-17-61	36.2	208.8	
		11-14-61	39.3	205.7	
		12-19-61	45.3*	199.7	
		1-16-62	45.8	199.2	
		2-20-62	49.0	196.0	
		3-13-62	48.2	196.8	
		4-10-62	52.0	193.0	
		5-16-62	35.2	209.8	
		6-19-62	36.1	208.9	
		7-17-62	40.8	204.2	
		8-07-62	45.3	199.7	
		9-18-62	46.0	199.0	
28S/22E-09D01 M	245.0	10-20-62	48.1	196.9	
		11-23-62	47.4	197.6	
		12-20-62	46.9	198.1	
		1-22-63	47.3	197.7	
		2-19-63	49.4	195.6	

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
BUENA VISTA WATER STORAGE DIST					
5-22-42					
28S/22E-09D01 M	245.0	3-18-63	49.8	195.2	5000
CONT.		4-20-63	43.7	201.3	
		5-21-63	37.9	207.1	
		6-18-63	53.4	191.6	
28S/22E-10D02 M	245.0	10-10-62	□		5120
		2-04-63	□		
28S/22E-36P01 M	253.2	7-04-62	46.0	207.2	4640
		8-03-62	□		
		9-05-62	45.2	208.0	
		10-04-62	46.0	207.2	
		11-02-62	32.4	220.8	
		12-08-62	30.2	223.0	
		1-02-63	33.5	219.7	
		2-05-63	□		
		3-02-63	47.2	206.0	
		4-02-63	37.7	215.5	
		5-01-63	33.9	219.3	
		6-04-63	33.0	220.2	
28S/23E-31R01 M	257.8	7-02-62	44.7	213.1	4640
		8-03-62	57.2	200.6	
		9-04-62	62.4	195.4	
		10-03-62	33.8	224.0	
		11-02-62	31.6	226.2	
28S/23E-08A01 M	260.3	12-07-62	32.2	225.6	
		1-02-63	32.0	225.8	
		2-04-63	50.6	207.2	
		3-01-63	□		
		4-02-63	47.4	210.4	
29S/23E-08A01 M	260.3	5-01-63	38.2	219.6	
		6-04-63	40.3	217.5	
		7-03-62	56.5	203.8	4640
		8-03-62	61.8	198.5	
		9-04-62	55.4	204.9	
29S/23E-08A01 M	260.3	10-03-62	38.0	222.3	
		11-02-62	39.0	224.7	
		12-07-62	37.6	222.7	
		1-02-63	36.1	224.2	
		2-04-63	63.5	196.8	
29S/23E-08A01 M	260.3	3-01-63	□		
		4-02-63	54.0	206.3	
		5-01-63	45.4	214.9	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
BUENA VISTA WATER STORAGE DIST					
5-22+42			5-22+42		
295/23E-08A01 M	260+3	6-04-63	43.8	216.5	4640
CONT.					
295/23E-10P01 M	263+5	7-06-61	91.7	171.8	4640
		8-02-61	91.7	211.5	
		9-06-61	52.0	217.5	
		10-03-61	46.0	221.0	
		11-02-61	42.5	221.7	
		12-02-61	41.8	225.0	
		1-02-62	38.5	225.8	
		2-02-62	37.7	225.8	
		3-02-62	42.4	221.1	
		4-03-62	41.3	222.2	
		5-01-62	36.6	226.9	
		6-02-62	35.3	228.2	
		7-04-62	53.3	210.2	
		8-03-62	66.7	196.8	
		9-05-62	66.7	224.7	
		10-04-62	38.8	230.1	
		11-03-62	33.4	211.4	
		12-08-62	52.1	228.8	
		1-03-63	34.7	228.8	
		2-05-63	68.9	194.6	
		3-02-63	42.2	221.3	
		4-02-63	55.7	207.8	
		6-04-63	55.7	207.8	
295/23E-27M01 M	270+0	7-19-61	46.0	224.0	5000
CONT.					
		8-21-61	47.4	222.6	
		9-19-61	46.2	223.8	
		10-17-61	45.6	224.4	
		11-14-61	45.9	224.1	
		12-19-61	46.0	224.0	
		1-16-62	46.0	224.0	
		2-20-62	45.4	224.6	
		3-14-62	45.4	226.2	
		4-10-62	43.8	225.6	
		5-16-62	44.4	225.6	
		6-19-62	43.8	226.2	
		7-17-62	45.0	225.0	
		8-07-62	45.0	225.9	
		9-18-62	44.1	226.0	
		10-13-62	44.0	226.8	
		11-18-62	43.2	225.9	
		12-20-62	44.1	225.9	
		1-23-63	44.1	225.9	
BUENA VISTA WATER STORAGE DIST					
5-22+42			5-22+42		
295/23E-27M01 M	270+0	2-17-63	45.8	224.2	5000
CONT.					
		4-20-63	45.8	225.2	
		5-21-63	44.8	225.8	
		6-18-63	44.2	225.8	
295/24E-32001 M	280+7	7-04-62	59.2	221.5	4640
		8-04-62	74.4	206.3	
		9-05-62	66.7	214.0	
		10-04-62	55.7	225.0	
		11-03-62	55.0	225.7	
		12-08-62	55.6	225.1	
		1-02-63	55.2	225.5	
		2-05-63	69.6	211.1	
		3-02-63	87.0	193.7	
		4-02-63	59.6	221.1	
		5-01-63	58.1	222.6	
		6-04-63	59.9	220.8	
30S/23E-01C01 M	276+8	7-02-62	49.7	227.1	4640
		8-03-62	48.3	228.5	
		9-04-62	54.7	222.1	
		10-03-62	53.2	223.6	
		11-02-62	54.3	222.5	
		12-07-62	51.2	225.6	
		1-02-63	52.6	244.0	
		2-04-63	28.7	248.1	
		3-01-63	33.0	243.6	
		4-02-63	26.5	250.3	
		5-01-63	29.0	247.8	
		6-04-63	29.6	247.2	
30S/24E-02C01 M	287+0	7-03-62	65.9	221.1	4640
		8-03-62	67.0	220.0	
		9-04-62	69.6	217.4	
		10-03-62	64.8	222.2	
		11-02-62	64.3	222.7	
		12-07-62	64.3	222.7	
		1-02-63	68.4	218.6	
		2-04-63	71.7	215.3	
		3-01-63	67.2	219.8	
		4-02-63	66.8	220.2	
		5-01-63	66.8	220.2	
		6-04-63	66.8	220.2	
30S/24E-04C01 M	282+0	7-19-61	129.1*	152.9	5000

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
BUENA VISTA WATER STORAGE DIST					
305/24E-04C01 M	282.0	8-21-61	83.5	198.5	5000
CONT.		9-19-61	60.5	221.5	
		10-17-61	57.8	224.2	
		11-14-61	58.4	225.9	
		12-19-61	57.5	224.7	
		1-16-62	63.3	218.7	
		2-20-62	56.7	225.3	
		3-14-62	62.4	219.6	
		4-10-62	58.9	223.1	
		5-16-62	57.6	224.4	
		6-19-62	61.9	220.1	
		7-17-62	61.5	220.5	
		8-07-62	72.6	209.4	
		9-18-62	60.2	221.8	
		10-13-62	57.8	224.2	
		11-23-62	55.5	226.5	
		12-20-62	56.8	225.2	
		1-23-63	53.5	228.5	
		2-19-63	53.6	228.4	
		3-17-63	55.0	227.0	
		4-20-63	63.7	218.3	
		5-21-63	66.8	215.2	
		6-18-63	65.8	216.2	
315/25E-27F01 M	283.0	7-19-61	39.1	243.9	5000
CONT.		8-22-61	□		
		9-19-61	50.0	233.0	
		10-17-61	56.8	226.2	
		11-14-61	58.1	224.9	
		12-19-61	□		
		1-16-62	32.8	250.2	
		2-20-62	□		
		3-14-62	20.7	262.3	
		4-11-62	26.0	257.0	
		5-16-62	24.9	258.1	
		6-19-62	39.2	243.8	
		7-18-62	28.7	254.3	
		8-07-62	35.2	257.3	
		9-18-62	30.2	252.8	
		10-13-62	41.6	241.4	
		12-14-62	43.4	239.6	
		1-23-63	44.0	239.0	
		2-19-63	34.0	249.0	
		3-17-63	35.6	247.4	
		4-28-63	□		

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
BUENA VISTA WATER STORAGE DIST					
315/25E-27F01 M	283.0	5-21-63	36.6	246.4	5000
CONT.		6-18-63	27.4	255.6	
		SEMITROPIC WATER STORAGE DIST			
		5-22-63			
255/22E-02E01 M	212.0	7-20-62	99.1	112.9	5000
CONT.		8-08-62	105.9	106.1	
		9-18-62	108.0	104.0	
		10-20-62	108.3	103.7	
		11-25-62	110.5	101.5	
		12-15-62	104.5	107.5	
		1-23-63	108.5	103.5	
		2-21-63	111.1	100.9	
		3-18-63	114.0	98.0	
		4-20-63	@		
255/22E-02N02 M	212.0	7-20-62	40.1	171.9	5000
CONT.		8-08-62	41.6	170.4	
		9-18-62	40.1	171.9	
		10-20-62	45.1	166.9	
		11-25-62	41.5	170.5	
		12-15-62	41.7	170.3	
		1-23-63	42.8	169.2	
		2-21-63	44.0	168.0	
		3-18-63	45.5	166.5	
		4-28-63	46.9	165.1	
		5-22-63	51.1	160.9	
		6-19-63	58.2	153.8	
255/22E-14G01 M	215.0	10-10-62	170.7	44.3	5120
CONT.		2-06-63	140.5	74.5	
		10-11-62	□		5120
		2-07-63	□		
255/23E-28D01 M	217.0	7-21-61	84.8	132.2	5000
CONT.		8-23-61	88.4	128.6	
		9-20-61	128.1	128.1	
		10-19-61	86.0	131.0	
		11-16-61	84.9	132.1	
		12-21-61	80.1	136.9	
		1-18-62	77.3	139.7	
		2-22-62	□		
		3-15-62	71.6	145.4	
		4-13-62	73.8	143.2	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
255/23E-28D01 M CONT.	217.0	5-18-62 74.2 6-21-62 76.5 7-19-62 81.4 8-08-62 85.9 9-20-62 87.3 10-19-62 90.1 11-25-62 88.9 12-15-62 82.8 1-26-63 79.0 2-21-63 77.6 3-18-63 76.5 4-28-63 78.1 5-22-63 78.1 6-19-63 79.2	5-22+43	142.8 140.5 135.6 131.1 129.7 126.9 128.1 134.2 138.0 139.4 140.5 138.9 137.8	5000
255/23E-28D03 M	217.0	7-21-61 202.1 8-23-61 210.5 9-20-61 212.0 10-19-61 195.6 11-16-61 171.7 12-31-61 169.4 1-18-62 137.1 2-22-62 120.0 3-13-62 134.7 5-18-62 142.9 6-21-62 161.4 7-19-62 189.7 8-08-62 206.7 9-20-62 206.4 10-14-62 202.5 11-25-62 168.5 12-15-62 158.2 1-26-63 149.1 2-21-63 146.2 3-18-63 146.3 5-22-63 155.3 6-19-63 153.4	5-22+43	14.9 6.5 5.0 21.4 45.3 67.6 79.9 97.0 82.3 74.1 55.6 27.3 10.3 10.6 14.5 48.5 58.8 67.9 70.8 70.7 61.7 63.6	5000
255/24E-07R01 M	228.0	10-09-62 96.8 1-31-63 89.0	5-22+43	131.2 139.0	6001
255/24E-15H01 M CONT.	248.0	7-21-61 89.0 8-23-61 89.5 9-21-61 89.9	5-22+43	159.0 158.5 158.1	5000
255/24E-15H01 M CONT.	248.0	10-19-61 86.9 11-16-61 88.9 12-21-61 88.9 1-18-62 88.9 2-22-62 88.5 3-15-62 88.1 4-13-62 88.3 5-18-62 88.7 6-21-62 88.2 7-19-62 89.9 8-08-62 90.1 9-20-62 90.5 10-14-62 90.5 11-25-62 88.8 12-15-62 89.1 1-25-63 88.4 2-22-63 87.7 3-18-63 87.6 4-28-63 88.6 5-23-63 88.7 6-19-63 88.9	5-22+43	161.1 158.8 159.1 159.5 159.9 159.7 159.3 159.8 158.1 157.9 157.5 157.5 159.2 159.6 159.6 160.4 159.4 159.3 159.1	5000
255/24E-30H01 M	237.4	10-08-62 149.5 1-31-63 149.5	5-22+43	87.9	6001
265/21E-14E01 M	244.0	7-17-62 40.8 8-07-62 41.0 9-18-62 39.2 10-20-62 37.5 11-23-62 37.3 12-20-62 39.2 1-22-63 39.1 2-19-63 38.8 3-18-63 39.5 4-20-63 40.5 5-21-63 39.2 6-18-63 39.5	5-22+43	203.2 203.0 203.8 206.5 206.7 204.8 204.9 205.2 204.5 203.5 204.8 204.5	5000
265/21E-14J01 M	237.0	10-10-62 26.2 2-06-63 35.5	5-22+43	210.8 201.5	5120
265/22E-10G01 M	225.0	7-20-62 75.5 8-08-62 75.5 9-18-62 75.5 10-20-62 75.5	5-22+43	149.5	5000

GROUND WATER LEVELS AT WELLS

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TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SEMITROPIC WATER STORAGE DIST					
28S/23E-11E01 M CONT.	255.0	10-04-62 11-02-62 12-08-62 1-03-63 2-05-63 3-02-63 4-02-63 5-01-63 6-04-63	30.9 29.3 29.8 30.3 28.0 27.7 29.3 28.1 36.2	224.1 225.7 225.2 224.7 227.0 227.3 225.7 226.9 218.8	4640
5/24E-28A01 M	301.1	7-06-61 9-06-61 10-03-61 11-02-61 12-02-61 1-02-62 2-02-62 3-02-62 4-03-62 5-02-62 6-03-62 7-03-62 8-03-62 9-05-62 10-04-62 11-02-62 12-08-62 1-03-63 2-05-63 3-02-63 4-02-63 6-04-63	 182.7 172.2 153.5 148.5 147.4 141.5 154.0 148.1 165.7 172.7 159.5 156.9 155.0 160.7 163.5	 118.4 128.9 147.6 152.6 153.7 159.6 147.1 153.0 135.4 128.4 141.6 144.2 146.1 140.4 137.6	 <

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
AVENAL-MCKITTRICK AREA					
5-22.44			5-22.46		
26S/19E-12L01 M	530.0	1-09-63	207.2	322.8	5050
27S/18E-15R01 M	1220.0	1-09-63	36.2*	1183.8	5050
TULARE LAKE-LOST HILLS AREA					
5-22.45			5-22.46		
21S/20E-12M01 M	181.0	7-17-62	□	36.3	5000
		8-06-62	217.3	32.0	
		9-17-62	213.0	32.0	
		10-06-62	204.6	32.6	
		12-20-62	194.9	34.1	
		1-22-63	215.1	34.1	
		2-19-63	221.2	40.2	
		3-18-63	□		
		4-20-63	213.7	32.7	
		5-21-63	196.3	15.3	
		6-17-63	189.2	8.2	
21S/20E-27A01 M	178.0	7-17-62	□		5000
		8-06-62	□		
		9-17-62	223.7	45.7	
		10-20-62	215.5	37.5	
		12-20-62	□		
		1-22-63	□		
		2-19-63	□		
		3-18-63	220.0	42.0	
		4-20-63	231.4	53.4	
		5-21-63	211.8	33.8	
		6-17-63	198.3	20.3	
25S/21E-22H01 M	217.0	7-17-62	99.8	117.2	5000
		8-07-62	99.7	117.3	
		9-18-62	101.6	115.2	
		10-20-62	103.2	113.6	
		11-23-62	104.4	112.6	
		12-20-62	104.2	112.8	
		1-22-63	104.7	112.3	
		2-19-63	103.4	113.6	
		3-18-63	103.8	113.2	
		4-20-63	103.4	113.6	
		5-21-63	103.6	113.4	
		6-18-63	104.0	113.0	
CORCORAN IRRIGATION DISTRICT					
5-22.44			5-22.46		
21S/22E-10J03 M	204.0	2-27-62	63.3	140.7	5050
		11-05-62	65.5	138.5	
		12-04-62	64.7	139.3	
		1-25-63	65.9	138.1	
		2-28-63	70.0	134.0	
		3-04-63	64.4	139.6	
		4-29-63	70.4	133.6	
		5-31-63	65.5	138.5	
		6-28-63	66.8	137.2	
21S/22E-16Q01 M	196.5	7-02-62	15.8	180.7	5050
		8-03-62	16.3	180.2	
		9-27-62	16.7	179.8	
		11-05-62	15.9	180.6	
		12-04-62	15.4	181.1	
		1-25-63	16.0	180.5	
		2-28-63	15.9	180.6	
		3-04-63	15.6	180.9	
		4-29-63	16.2	180.3	
		5-31-63	16.7	179.8	
		6-28-63	16.6	179.9	
		7-02-62	15.9	180.6	
		8-03-62	16.3	180.2	
		9-27-62	16.7	179.8	
		11-05-62	15.9	180.6	
		12-04-62	15.4	181.1	
		1-25-63	16.0	180.5	
		2-28-63	15.9	180.6	
		3-04-63	15.6	180.9	
		4-29-63	16.2	180.3	
		5-31-63	16.7	179.8	
		6-28-63	16.6	179.9	
21S/22E-24K01 M	209.0	2-14-63	□		5050
21S/22E-27A01 M	196.0	2-28-62	42.0	154.0	5050
		11-05-62	47.0	149.0	
		12-04-62	44.9	151.1	
		1-28-62	45.2	150.8	
		2-25-63	44.9	151.1	
		3-04-63	45.1	150.9	
		4-29-63	44.2	151.8	
		5-31-63	43.7	152.3	
		6-28-63	45.3	150.7	
22S/22E-01B02 M	201.0	2-28-62	36.1	164.9	5050
		11-05-62	28.7	172.3	
		12-04-62	27.4	173.6	
		1-28-62	26.3	174.7	
		2-25-63	28.3	172.7	
		3-04-63	28.7	172.3	

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
CORCORAN IRRIGATION DISTRICT					
5-22-46					
22S/22E-01B02 M CONT.	201.0	3-28-63 4-29-63 5-31-63 6-28-63	27.0 27.3 25.5 25.4	174.0 173.7 175.5 175.6	5050
22S/22E-05L01 M	188.0	3-19-62 11-05-62 12-04-62 12-28-62 1-25-63 3-04-63 3-28-63 4-29-63 5-31-63 6-28-63	177.5 166.2 161.1 □ 162.4 166.1 163.0 158.1 □	10.5 21.8 26.9 25.6	5050
22S/22E-08L01 M	188.0	3-19-62 11-05-62 12-04-62 12-28-62 1-25-63 3-04-63 3-28-63 4-29-63 5-31-63 6-28-63	181.2 223.9 213.6 □ 167.7 166.1 163.3 156.8 152.0	6.8 35.9 25.6 20.3 21.9 24.7 31.2 36.0	5050
22S/22E-15C01 M	191.0	7-24-61 8-30-61 9-27-61 11-01-61 11-28-61 12-28-61 1-26-62 2-28-62 3-30-62 4-27-62 5-31-62 7-02-62 8-03-62 8-30-62 9-27-62 11-05-62 12-04-62 12-28-62	200.8* 209.3 210.1 196.6 193.1 180.2 177.8 181.4 168.7 163.7 154.2 153.3 156.9 161.5 162.3 158.1 153.1 150.5	9.8 18.3 19.1 5.6 2.1 10.8 13.2 9.6 22.3 27.3 36.8 37.7 34.1 29.5 28.7 32.9 37.9 40.5	5050
CORCORAN IRRIGATION DISTRICT					
5-22-46					
22S/22E-15C01 M CONT.	191.0	1-25-63 3-04-63 3-28-63 4-29-63 5-31-63 6-28-63	154.0 152.7 149.7 146.3 141.2 137.1	37.0 38.3 41.3 44.7 49.8 53.9	5050
MENDOTA-HURON AREA					
5-22-47					
13S/12E-05O01 M	247.0	10-23-62 3-25-63	256.7 301.0	9.7 54.0	6001
13S/12E-22N01 M	280.0	10-30-62 3-25-63	171.6 192.8	108.4 87.2	6001
13S/13E-10R01 M	211.0	10-24-62 3-12-63	222.3 215.6	11.3 4.6	6001
13S/13E-12A01 M	183.0	10-24-62 3-13-63	5.6 245.3	177.4 178.0	6001
13S/13E-15R01 M	222.0	10-25-62 3-12-63	260.4 245.3	38.4 23.3	6001
13S/13E-33N01 M	282.5	10-23-62	@		6001
13S/14E-09J01 M	164.0	10-24-62 3-13-63	DRY DRY		6001
13S/14E-32O01 M	225.0	10-28-62 3-13-63	115.3 112.4	109.7 112.6	6001
14S/13E-15W01 M	321.0	12-22-62	□		5000
14S/14E-05H01 M	221.0	7-16-62 8-14-62 10-09-62 11-06-62 2-18-63 3-28-63 4-23-63 5-21-63 6-18-63	93.8 92.5 89.6 85.8 86.0 85.9 85.3 90.4	127.2 128.5 131.4 135.2 135.0 135.1 135.7 130.6	5000
14S/14E-28E02 M	248.0	7-16-62	62.8	185.2	5000

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MENDOTA-HURON AREA					
5-22.47					
14S/14E-28E02 M	248.0	8-06-62	64.9	183.1	5000
CONT.		9-17-62	65.7	182.3	
		10-21-62	64.4	183.6	
		11-24-62	63.6	184.4	
		1-23-63	61.2	186.8	
		2-18-63	60.7	187.3	
		3-18-63	60.3	187.7	
		4-21-63	□		
		5-20-63	61.0	187.0	
		6-17-63	60.2	187.8	
14S/15E-35N01 M	161.0	10-19-62	71.5	89.5	6001
CONT.		2-26-63	51.4	109.6	
		12-21-62	□		
15S/13E-26N01 M	473.0	7-16-62	233.6	48.4	5000
CONT.		8-06-62	237.2	44.8	
		9-17-62	234.2	47.8	
		10-21-62	231.6	50.4	
		11-24-62	229.1	52.9	
		1-23-63	227.9	54.1	
		2-18-63	226.8	55.2	
		3-18-63	225.1	56.9	
		4-21-63	229.1	52.9	
		5-20-63	230.6	51.4	
		6-17-63	227.5	54.5	
15S/14E-15E01 M	236.0	7-18-61	57.5	178.5	5000
CONT.		8-21-61	65.1	170.9	
		9-18-61	64.9	171.1	
		10-16-61	60.5	175.5	
		11-13-61	□		
		12-18-61	64.4	171.6	
		1-15-62	64.4	171.6	
		2-19-62	□		
		3-12-62	64.9	171.1	
		4-09-62	63.7	172.3	
		5-16-62	63.9	172.1	
CONT.		6-18-62	63.8	172.2	
		7-16-62	64.6	171.4	
		8-06-62	62.2	173.8	
		9-17-62	62.4	173.6	
		10-21-62	62.1	173.9	
5-22.47					
15S/14E-15E01 M	236.0	11-24-62	62.6	173.4	5000
CONT.		1-23-63	62.7	173.3	
		2-18-63	63.2	172.8	
		3-18-63	63.8	172.5	
		4-21-63	60.5	175.5	
		5-20-63	61.0	175.0	
		6-17-63	60.0	176.0	
		7-18-61	341.3	105.3	5000
		8-21-61	343.8	107.8	
		9-18-61	338.7	102.7	
		10-16-61	330.4	94.4	
CONT.		11-13-61	□		
		12-18-61	311.4	75.4	
		1-15-62	306.3	70.3	
		2-19-62	□		
		3-12-62	291.0	55.0	
		4-09-62	287.7	51.7	
		5-16-62	288.9	52.9	
		6-18-62	290.6	54.6	
		7-16-62	297.8	61.8	
		8-06-62	305.5	58.5	
CONT.		9-17-62	314.2	78.2	
		10-21-62	341.7	105.7	
		11-24-62	346.7	112.7	
		1-23-63	346.0	110.0	
		2-18-63	340.9	104.9	
		3-18-63	338.0	102.0	
		4-21-63	397.0	161.0	
		6-17-63	401.3	165.3	
5-22.47					
15S/15E-22Q01 M	175.0	10-18-62	□		6001
CONT.		2-21-63	95.6	79.4	
		7-19-62	81.5	89.5	5000
		8-14-62	85.0	86.0	
		9-10-62	83.8	87.2	
		10-09-62	72.0	99.0	
		11-06-62	63.5	107.5	
		12-03-62	60.8	110.2	
		1-03-63	56.7	114.3	
		2-26-63	72.8	98.2	
		3-28-63	72.9	98.1	
CONT.		4-23-63	64.8	106.2	
		5-21-63	64.8	106.2	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MENDOTA-HURON AREA					
155/16E-20R01 M	172.0	6-18-63	66.1	104.9	5000
155/16E-28A04 M	170.0	7-18-61	162.9	7.1	5000
		8-21-61	167.1	2.9	5000
		9-18-61	167.5	2.5	5000
		10-16-61	166.7	3.3	5000
		11-13-61	166.5	3.5	5000
		12-18-61	162.1	7.9	5000
		1-15-62	159.1	10.9	5000
		2-10-62	157.7	12.3	5000
		3-12-62	158.6	11.4	5000
		4-09-62	159.3	10.7	5000
		5-18-62	160.6	9.4	5000
		7-18-62	162.1	7.9	5000
		8-06-62	165.9	4.1	5000
		9-17-62	171.3	1.9	5000
		10-21-62	170.5	-	5000
		11-24-62	168.6	1.4	5000
		12-21-62	166.8	3.2	5000
		1-23-63	163.9	6.1	5000
		2-18-63	161.8	8.2	5000
		3-18-63	164.1	5.9	5000
		4-21-63	176.7	6.7	5000
		5-20-63	180.7	-	5000
		6-17-63	166.2	5.8	5000
155/16E-34E01 M	175.0	7-19-62	189.7	14.7	5000
		8-14-62	194.0	-	5000
		9-10-62	196.3	21.3	5000
		10-09-62	193.5	18.5	5000
		11-06-62	192.6	17.6	5000
		12-03-62	190.4	15.4	5000
		1-03-63	186.5	11.5	5000
		2-26-63	185.6	10.6	5000
		3-28-63	189.1	14.1	5000
		4-23-63	189.3	14.3	5000
		5-21-63	189.3	14.3	5000
		6-18-63	188.1	-	5000
165/15E-02N02 M	219.0	10-18-62	94.5	124.5	6001
		2-20-63	88.5*	130.5	6001
165/16E-10N01 M	191.0	10-15-62	125.8	65.2	6001
		2-07-63	121.3	69.7	6001
MENDOTA-HURON AREA					
165/16E-18N01 M	233.0	10-15-62	87.0	146.0	6001
		2-20-63	83.3	149.7	6001
165/16E-28N01 M	235.0	10-18-62	DRY		6001
		2-20-63	@		6001
175/14E-13R01 M	457.0	12-19-62	□		5000
175/16E-02E01 M	218.0	10-18-62	211.4	6.6	5050
		2-07-63	195.8	22.2	5050
175/16E-24R01 M	232.5	7-16-62	193.3	39.2	5000
		8-06-62	193.4	3.1	5000
		9-17-62	192.1	40.4	5000
		10-21-62	185.7	46.8	5000
		11-23-62	□		5000
		12-21-62	169.7	62.8	5000
		1-23-63	170.6	61.9	5000
		2-18-63	168.8	63.7	5000
		3-18-63	165.9	66.6	5000
		4-21-63	177.7	54.8	5000
		5-20-63	169.1	63.4	5000
		6-17-63	173.1	59.4	5000
175/16E-30A02 M	290.0	7-18-61	67.2	222.8	5000
		8-21-61	67.0	223.0	5000
		9-18-61	67.8	222.2	5000
		10-16-61	64.4	225.6	5000
		11-13-61	67.6	222.4	5000
		12-18-61	67.1	222.9	5000
		1-15-62	66.7	223.3	5000
		2-19-62	□		5000
		3-12-62	66.9	223.1	5000
		4-09-62	66.9	223.1	5000
		5-15-62	66.9	223.1	5000
		6-18-62	68.0	222.0	5000
		7-16-62	66.2	223.8	5000
		8-06-62	67.4	222.6	5000
		9-17-62	64.1	225.9	5000
		10-21-62	66.7	223.3	5000
		11-23-62	66.4	223.6	5000
		12-20-62	66.4	223.6	5000
		1-23-63	66.3	223.7	5000
		2-18-63	66.1	223.9	5000
		3-18-63	65.7	224.3	5000

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MENDOTA-HURON AREA					
5-22-47					
17S/17E-30A02 M	290.0	4-21-63	66.1	223.9	5000
CONT.		6-17-63	72.9	211.1	
17S/16E-30A04 M	290.0	7-18-61	435.8	- 145.8	5000
		8-21-61	453.9	- 163.9	
		9-18-61	463.1	- 173.1	
		10-16-61	441.3	- 151.3	
		11-13-61	440.5	- 150.5	
		12-18-61	372.5*	- 82.5	
		1-15-62	364.4	- 76.4	
		2-19-62	□		
		3-12-62	367.2	- 77.2	
		4-09-62	363.7	- 73.7	
		5-15-62	385.2	- 95.2	
		6-18-62	403.1	- 113.1	
		7-16-62	413.3	- 123.3	
		8-06-62	431.6	- 141.6	
		9-17-62	433.5	- 143.5	
		10-21-62	430.2	- 140.2	
		11-23-62	423.8	- 133.8	
		12-21-62	418.1	- 128.1	
		1-23-63	413.3	- 123.3	
		2-18-63	406.4	- 116.4	
		3-18-63	404.1	- 114.1	
		4-21-63	375.5	- 85.5	
		5-20-63	363.4	- 73.4	
		6-17-63	366.2	- 76.2	
17S/17E-21N02 M	226.0	7-18-62	306.6	- 80.6	5000
		8-03-62	308.5	- 82.5	
		8-18-62	303.8	- 77.8	
		9-04-62	304.4	- 78.4	
		10-02-62	284.5	- 58.5	
		10-23-62	290.0	- 64.0	
		11-21-62	279.5	- 59.5	
		12-12-62	263.0	- 37.0	
		1-01-63	251.2	- 25.2	
		2-08-63	292.0	- 66.0	
		2-26-63	269.0	- 43.0	
		3-03-63	274.6	- 48.6	
		3-17-63	276.9	- 50.9	
		4-10-63	288.1	- 62.1	
		5-16-63	269.4	- 43.4	
		6-01-63	285.3	- 59.3	
		6-11-63	280.1	- 54.1	
MENDOTA-HURON AREA					
5-22-47					
17S/17E-21N02 M	226.0	6-30-63	304.0	- 78.0	5000
CONT.		7-18-61	736.7	- 307.7	5000
		8-21-61	757.7	- 328.7	
		9-18-61	723.5	- 294.5	
		10-16-61	703.3	- 274.3	
		11-13-61	701.6	- 272.6	
		12-18-61	691.5	- 262.5	
		1-15-62	690.5	- 261.5	
		2-19-62	□		
		3-12-62	693.2	- 264.2	
		4-09-62	725.9	- 296.9	
		5-15-62	819.6	- 390.6	
		6-18-62	834.0	- 405.0	
		7-16-62	850.8	- 421.8	
		8-06-62	858.5	- 429.5	
		9-17-62	818.3	- 389.3	
		10-21-62	791.1	- 362.1	
		11-23-62	792.9	- 363.9	
		12-20-62	756.4	- 327.4	
		2-18-63	740.5	- 311.5	
		3-18-63	738.3	- 309.3	
		4-21-63	743.9	- 314.9	
		5-20-63	725.3	- 296.3	
		6-17-63	734.3	- 305.3	
18S/17E-12N01 M	253.0	12-19-62	322.1	- 69.1	5000
19S/17E-35N01 M	367.0	7-19-62	510.0	- 143.0	5000
		8-15-62	516.4	- 149.4	
		9-12-62	490.4	- 123.4	
		10-09-62	464.8	- 97.8	
		11-07-62	466.6	- 99.6	
		12-04-62	461.2	- 94.2	
		1-04-63	478.0	- 111.0	
		2-27-63	509.1	- 142.1	
		3-28-63	496.8	- 129.8	
		4-23-63	495.3	- 128.3	
		5-21-63	495.3	- 128.3	
		6-18-63	493.0*	- 126.0	
19S/18E-15W01 M	274.0	12-20-62	□		5000
19S/18E-27W01 M	281.0	7-16-62	354.2	- 73.2	5000
		8-06-62	359.3	- 78.3	

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA	STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MENDOTA-HURON AREA											
5-22.47											
19S/18E-27M01 M	281.0	9-17-62	354.9	- 73.9	5000	20S/18E-36D01 M	260.0	6-17-63	291.1	- 31.1	5000
CONT.		10-20-62	351.5	- 70.5		21S/15E-01E01 M	623.0	1-08-63	188.2	434.8	5050
		11-24-62	349.0	- 68.0		21S/16E-02N01 M	570.0	1-08-63	162.0	408.0	5050
		12-21-62	358.8	- 77.8		21S/16E-07N01 M	634.0	1-08-63	□		5050
		2-16-63	361.7	- 83.2		21S/16E-35D01 M	682.0	1-08-63	□		5050
		2-16-63	364.2	- 83.2		21S/17E-06N01 M	526.0	1-08-63	125.9	400.1	5050
		3-18-63	366.5	- 88.2		21S/18E-28M02 M	360.0	7-17-62	322.6	37.4	5000
		4-21-63	361.2	- 85.2				8-07-62	324.2	35.8	
		5-21-63	351.4	- 70.2				9-18-62	325.0	35.0	
		6-11-63	345.2	- 64.2				10-20-62	323.0	37.0	
0S/15E-25D01 M	619.0	1-08-63	189.3	429.7	5050			11-24-62	□		
1S/15E-32A01 M	675.0	8-16-62	211.9	463.1	5000			12-20-62	308.9	51.1	
		10-10-62	213.3	461.7				1-22-63	317.6	42.4	
		11-06-62	213.6	461.4				2-19-63	320.7	39.3	
		2-27-63	214.8	460.2				3-18-63	321.6	38.4	
		3-28-63	□					4-20-63	324.0	36.0	
		4-24-63	215.8	459.2				5-21-63	324.2	35.8	
		5-22-63	216.2	458.8				6-17-63	323.6	36.4	
		6-18-63	216.6	458.4							
20S/18E-11N01 M	277.0	12-21-62	429.0	- 152.0	5000	22S/16E-12F01 M	787.0	1-08-63	303.8	483.2	5050
20S/18E-11O01 M	270.0	8-16-62	449.5	- 179.5	5000	POSO SOIL CONSERVATION DISTRICT					
		9-12-62	430.5	- 160.5		10S/13E-06R01 M	110.0	7-21-61	9.2	100.8	5529
		10-10-62	424.7	- 154.7				8-18-61	□		
		11-07-62	422.7	- 152.7				9-12-61	5.9	104.1	
		2-27-63	436.5	- 166.5				10-16-61	7.3	102.7	
		3-28-63	435.0	- 165.0				11-14-61	8.2	101.8	
		4-24-63	421.3	- 151.3				12-13-61	9.0	101.0	
		5-22-63	406.0	- 136.0				1-12-62	9.2	100.8	
		6-18-63	418.0	- 148.0				2-15-62	7.5	102.5	
20S/18E-36D01 M	260.0	7-17-62	287.6	- 27.6	5000			3-17-62	5.8	104.2	
		8-06-62	279.0	- 19.0				4-21-62	5.6	104.4	
		9-18-62	289.4	- 29.4				5-19-62	6.3	103.7	
		10-20-62	288.1	- 28.1				6-19-62	□		
		11-24-62	284.8	- 24.8				7-10-62	7.3	102.7	
		12-20-62	278.7	- 18.7				8-15-62	18.2	91.8	
		1-22-63	278.7	- 18.7				9-14-62	6.6	103.4	
		2-19-63	281.0	- 21.0				10-23-62	7.4	102.6	
		3-18-63	281.6	- 21.6							
		4-20-63	288.6	- 28.6							
		5-21-63	281.3	- 21.3							

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
POSO SOIL CONSERVATION DISTRICT 5-22-48					
10S/13E-06R01 M CONT.	110.0	11-25-62 12-26-62 1-22-63 2-27-63 3-19-63 4-19-63 5-20-63 6-20-63	8.9 9.4 9.7 6.4 5.6 5.5 5.8 6.5	101.1 100.6 100.3 103.6 104.4 104.5 104.2 103.5	5529
11S/13E-05001 M	117.0	7-20-61 8-18-61 9-12-61 10-16-61 11-14-61 12-13-61 1-12-62 2-15-62 3-17-62 4-21-62 5-19-62 6-19-62 7-10-62 8-15-62 9-14-62 10-23-62 11-25-62 12-26-62 1-22-63 2-27-63 3-19-63 4-19-63 5-20-63 6-21-63	□ □ □ 7.2 6.9 6.9 7.1 6.8 6.1 6.1 □ □ □ □ 7.3 □ 6.8 7.3 7.4 7.4 6.4 5.6 6.3 □ □ 20.6 17.4 14.9 10.9 10.5 10.5 9.7 9.3 16.5 14.2 17.5 17.6	109.8 110.1 110.1 109.9 110.2 110.9 □ □ □ □ □ □ □ 109.7 110.2 109.7 109.6 109.6 110.6 111.4 110.7	5529
11S/13E-26A01 M CONT.	128.0	8-15-62 9-14-62 10-23-62 11-25-62 12-26-62 1-22-63 2-27-63 3-19-63 4-19-63 5-20-63 6-20-63	16.1 17.8 10.6 10.6 10.5 10.3 9.5 8.9 7.7 8.3 11.4	111.9 110.2 117.4 117.4 117.5 117.7 118.5 119.1 120.3 119.7 116.6	5529
11S/13E-33L01 M	126.0	7-20-61 8-18-61 9-12-61 10-16-61 11-14-61 12-13-61 1-12-62 2-15-62 3-17-62 4-21-62 5-19-62 6-19-62 7-10-62 8-15-62 9-14-62 10-23-62 11-25-62 12-26-62 1-21-63 2-27-63 3-19-63 4-19-63 5-20-63 6-21-63	10.2 11.4 12.2 9.5 9.5 9.2 9.4 9.0 8.6 8.5 9.4 10.2 10.5 9.4 9.2 9.7 9.2 9.5 9.8 9.5 9.2 8.9 8.5 8.7	115.8 114.6 113.8 116.5 116.5 116.8 116.6 117.0 117.4 117.5 116.6 115.8 115.5 116.6 116.8 116.3 116.5 116.2 116.5 116.8 118.0 117.5 117.5	5529
12S/13E-13J01 M	140.0	7-20-61 8-18-61 9-12-61 10-16-61 11-14-61 12-13-61 1-12-62 2-15-62	□ □ 14.7 13.0 10.4 10.3 10.3 9.9	125.3 127.0 129.6 129.7 129.7 130.1	5529

TABLE C-1

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
TERRA BELLA IRRIGATION DISTRICT					
5-22.48					
125/13E-13J01 M	140.0	3-17-62	9.8	130.2	5529
CONT.					
		4-21-62	13.5	126.5	
		5-19-62	14.0	126.0	
		6-19-62	15.9	124.1	
		7-10-62	16.2	123.8	
		8-15-62	17.5	122.5	
		9-14-62	16.9	123.1	
		10-23-62	12.0	128.0	
		11-25-62	11.6	128.4	
		12-26-62	11.7	128.3	
		1-21-63	11.3	128.7	
		2-27-63	11.0	129.0	
		3-19-63	10.8	129.2	
		4-19-63	9.9	130.1	
		5-20-63	8.5	131.5	
		6-21-63	8.9	131.1	
TERRA BELLA IRRIGATION DISTRICT					
5-22.50					
225/27E-25J03 M	532.0	9-15-61	118.3	413.7	6001
		10-30-61	118.8	413.2	
		11-30-61	121.0	421.0	
		12-30-61	105.5	429.5	
		1-23-62	106.5	427.7	
		2-27-62	104.6	427.2	
		3-28-62	103.7	428.1	
		4-24-62	116.9	415.1	
		5-22-62	120.8	411.2	
		6-20-62	132.7	399.3	
		7-23-62	131.1	400.9	
		8-22-62	143.4	388.6	
		9-18-62	143.0	389.0	
		10-15-62	125.4	406.6	
		11-20-62	116.6	415.4	
		12-18-62	114.1	417.9	
		1-23-63	111.5	420.5	
		2-26-63	123.7	408.3	
		3-21-63	123.2	408.6	
		4-25-63	106.8	425.2	
		5-20-63	115.6	416.4	
		6-27-63	141.3	390.7	
225/27E-36N01 M	513.0	7-23-62	290.8	222.2	5000
		8-22-62	312.8	200.2	
		9-18-62	311.6	201.4	
TERRA BELLA IRRIGATION DISTRICT					
5-22.50					
225/27E-36N01 M	513.0	10-15-62	298.6	214.4	5000
CONT.					
		11-20-62	280.6	232.4	
		12-18-62	267.6	245.4	
		1-23-63	259.0	254.0	
		2-26-63	257.0	256.0	
		3-21-63	260.4	252.6	
		4-25-63	246.3	266.7	
		5-20-63	256.7	256.3	
		6-27-63	267.5	245.5	
235/27E-10H01 M	518.0	10-10-62	250.0	268.0	6001
		2-01-63	230.0	288.0	
MERCED BOTTOMS					
5-22.54					
75/10E-23K01 M	80.0	1-02-62	18.3	61.7	5050
		2-02-62	17.1	62.9	
		3-05-62	9.1	70.9	
		4-05-62	9.0	71.0	
		5-02-62	12.2	67.8	
		6-07-62	12.1	67.9	
		7-02-62	12.6	67.4	
		8-02-62	10.1	69.9	
		9-06-62	19.4	60.6	
		10-03-62	27.1	52.9	
		11-01-62	20.4	59.6	
		12-05-62	19.2	60.8	
		1-07-63	13.2	66.8	
		2-15-63	8.4	71.6	
		3-06-63	6.6	73.4	
		4-02-63	6.4	73.6	
		5-03-63	4.4	75.6	
		6-04-63	5.4	74.6	
75/10E-23K02 M	80.0	1-02-62	10.1	69.9	5050
		2-02-62	10.1	69.9	
		3-05-62	7.8	73.8	
		4-05-62	7.6	72.2	
		5-02-62	8.4	71.6	
		6-07-62	4.0	76.0	
		7-02-62	4.5	75.0	
		8-02-62	6.0	74.0	
		9-06-62	4.9	75.1	
		10-03-62	5.2	74.8	
		11-01-62	4.4	75.6	

TABLE C-1
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA	STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GRD SUR TO WATER SUR IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
MERCED BOTTOMS						MERCED BOTTOMS					
75/10E-23K02 M						95/14E-01B03 M					
CONT.						5-22-54					
95/14E-01B01 M	80.0	12-05-62	7.1	72.9	5050	95/14E-01B03 M	180.0	1-02-62	31.3	148.7	5050
		1-07-63	4.6	75.4				2-02-62	31.3	148.7	
		2-15-63	1.9	78.1				3-05-62	28.9	151.1	
		3-06-63	2.7	77.3				4-06-62	29.1	150.9	
		4-03-63	2.6	77.4				5-02-62	29.7	150.3	
		5-03-63	3.0	77.0				6-07-62	30.7	149.3	
		6-04-63	3.4	76.6				7-02-62	30.8	149.2	
								8-02-62	30.7	149.3	
		1-02-62	47.0	133.0	5050			9-06-62	31.9	148.1	
		2-02-62	44.6	135.4				10-03-62	32.4	147.6	
95/14E-01B02 M	180.0	3-05-62	42.1	137.9		95/14E-01B03 M	180.0	11-01-62	32.4	147.6	
		4-06-62	41.6	138.4				12-05-62	32.0	148.0	
		5-02-62	42.9	137.1				1-07-63	32.9	147.1	
		6-07-62	60.1	119.9				2-10-63	32.6	147.4	
		7-02-62	61.0	119.0				3-05-63	32.2	147.8	
		8-02-62	57.3	122.7				4-02-63	32.6	147.4	
		9-06-62	90.8	89.2				5-03-63	32.4	147.6	
		10-03-62	86.1	93.9				6-04-63	32.6	147.4	
		11-01-62	59.2	120.8							
		12-05-62	61.4	118.6							
		1-07-63	48.8	131.2							
		2-10-63	45.1	134.9							
		3-05-63	44.2	135.8							
		4-02-63	49.8	130.2							
		5-03-63	49.9	130.1							
		6-04-63	52.4	127.6							
95/14E-01B02 M	180.0	1-02-62	45.4	134.6	5050	95/14E-01B03 M	180.0	1-02-62	31.3	148.7	5050
		2-02-62	43.4	136.6				2-02-62	31.3	148.7	
		3-05-62	41.2	138.8				3-05-62	28.9	151.1	
		4-05-62	41.0	139.0				4-06-62	29.1	150.9	
		5-02-62	42.3	137.7				5-02-62	29.7	150.3	
		6-07-62	56.0	122.0				6-07-62	30.7	149.3	
		7-02-62	58.8	121.2				7-02-62	30.8	149.2	
		8-02-62	44.5	135.5				8-02-62	30.7	149.3	
		9-06-62	84.8	95.2				9-06-62	31.9	148.1	
		10-03-62	71.2	108.8				10-03-62	32.4	147.6	
		11-01-62	56.6	123.4				11-01-62	32.4	147.6	
		12-05-62	51.2	128.8				12-05-62	32.0	148.0	
		1-07-63	47.5	132.5				1-07-63	32.9	147.1	
		2-10-63	44.4	135.6				2-10-63	32.6	147.4	
		3-05-63	43.5	136.5				3-05-63	32.2	147.8	
		4-02-63	49.2	130.8				4-02-63	32.6	147.4	
		5-03-63	48.4	131.6				5-03-63	32.4	147.6	
		6-04-63	51.4	128.6				6-04-63	32.6	147.4	

APPENDIX D
SURFACE WATER QUALITY

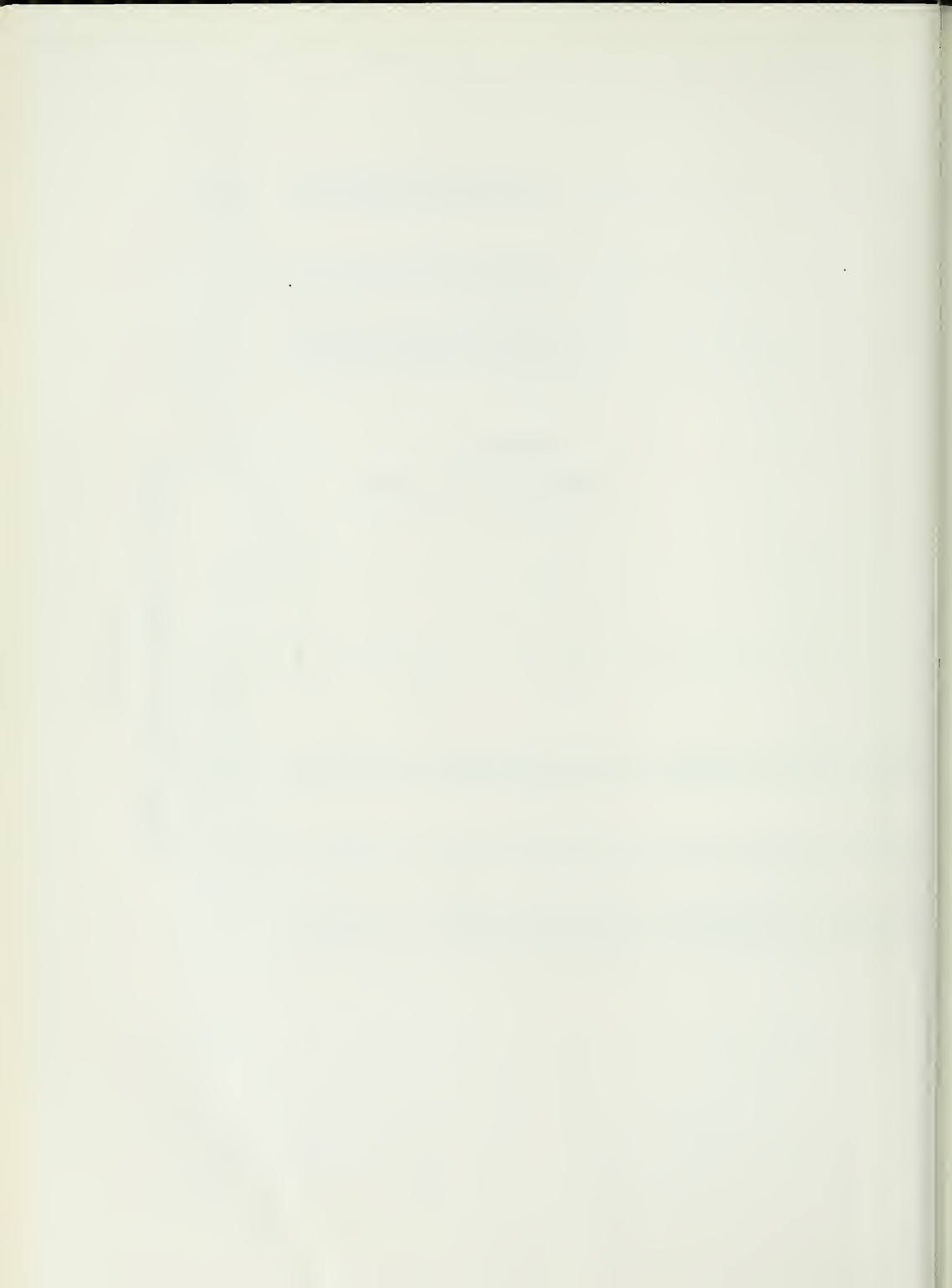


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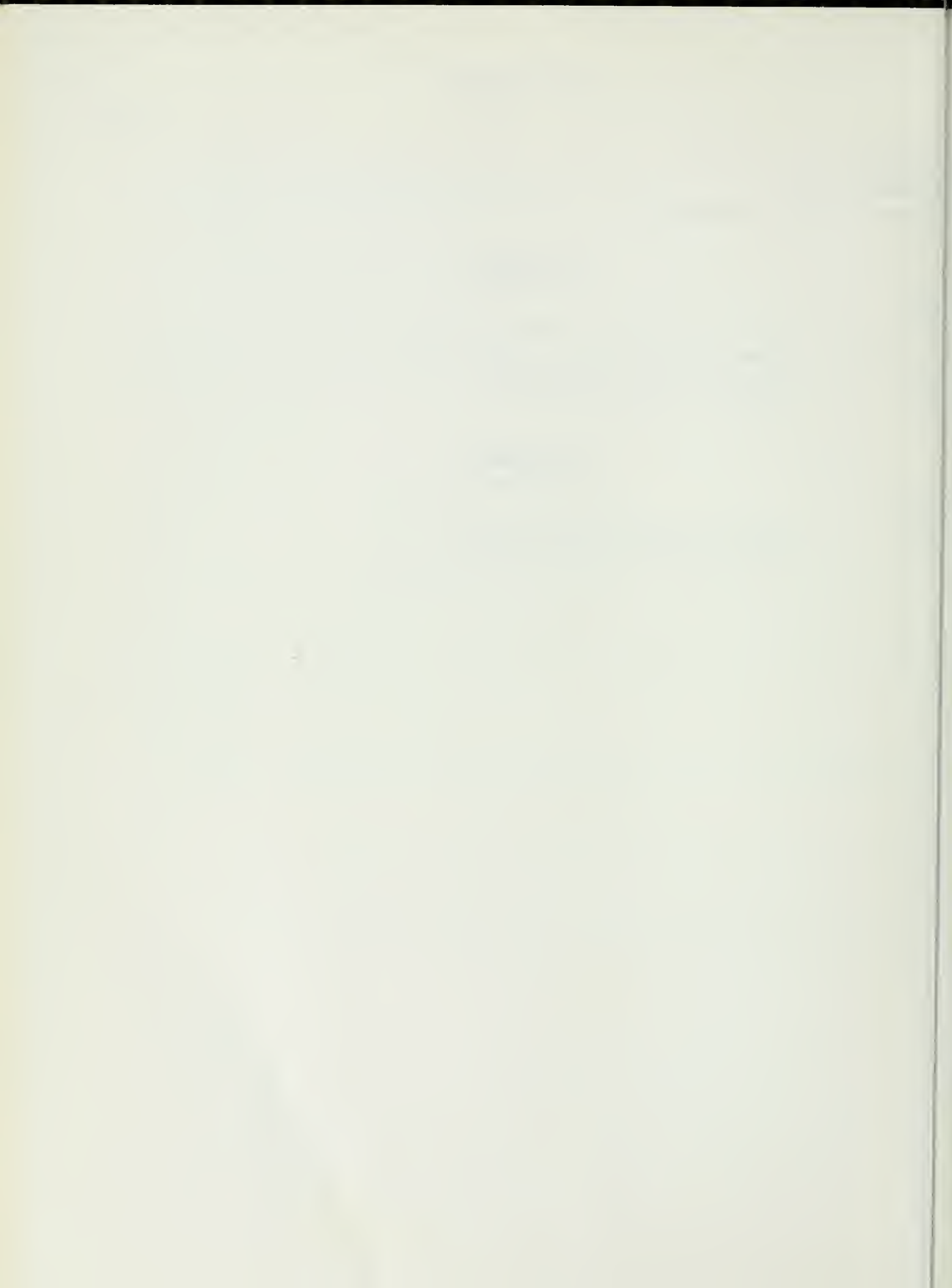
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LIST OF PLATES

(Bound at end of volume)

PLATE

D-1	Surface Water Sampling and Recorder Stations
D-2	Weekly Mean Specific Conductance at Selected Stations



INTRODUCTION

This appendix contains data pertaining to the quality of surface waters collected during the 1963 water year (October 1, 1962 to September 30, 1963). The data are presented as tables and graphs and represent the observed physical, chemical, and bacteriological characteristics of the waters collected at the surface water quality monitoring stations.

The stations are sampled periodically (monthly, quarterly, or semiannually), depending on past records, need, and the type of data required for each station. Samples collected and the field data obtained at the stations are as follows:

1. Partial mineral analysis - $\frac{1}{2}$ gallon
2. Bacteriological analyses (coliform) - 2 samples in 4 oz., sterilized bottles
3. Dissolved oxygen - D.O.
4. pH
5. Temperature
6. Gage Height
7. Time
8. Visual observation of water conditions

In May and September, the partial mineral analysis is replaced by a complete mineral analysis and the following are added to the list above:

1. Radiological analysis
2. Phosphate, arsenic and detergents (ABS)
3. Spectrographic analysis of heavy metals (for ten selected stations)

Continuous conductivity recorders are installed at six of the surface water quality monitoring stations, as indicated on Plate D-1. The recorders measure specific electrical conductance, a characteristic of water which provides an approximation of the quantity of minerals in solution.

EXPLANATION OF TABLES

An alphabetical listing of all stations in the surface water monitoring program is found in Table D-1 along with information concerning station number and location, period of record, frequency of sampling, and agency responsible for collection of samples.

Results of mineral analyses can be found in Tables D-2 to D-31, where mineral concentrations, dissolved oxygen, and ABS are expressed in parts per million (ppm). Discharges are expressed as cubic feet per second (cfs) and bacteriological determinations are expressed as the most probable number (MPN) of coliform bacteria per milliliter of sample.

Results of spectrographic analyses for heavy metals, found in Table D-32, are expressed as micrograms per liter or parts per billion.

Table D-33 contains results of radiological analyses, expressed as picocuries per liter (pc/l).

EXPLANATION OF PLATES

Locations of surface water quality stations and recorder sites are found on Plate D-1.

Plate D-2 presents, in graphical form, data obtained from electrical conductivity recorders in terms of mean weekly values of electrical conductivity ($EC \times 10^6$ micromhos) plotted against time (week).

EXPLANATION OF TERMS AND ABBREVIATIONS

Cubic foot per second (cfs) - the rate of discharge of water where a cubic foot of water passes a given point in one second.

Dissolved oxygen (DO) - the amount of free oxygen contained in water. It is one of the most important indicators of the condition of a water supply.

EXPLANATION OF TERMS AND ABBREVIATIONS (Continued)

Total dissolved solids (TDS) - represents the dissolved mineral constituents in water.

Specific conductance - a measure of the capacity of water to conduct a current of electricity.

Coliform - a group of organisms, whose presence is a satisfactory bacteriological indicator of contamination or pollution in water.

Most probable number (MPN) - an index of the number of coliform bacteria which more probably than any other number would give the results shown by laboratory tests.

Hardness - a characteristic of water that determines its usefulness and economic value. It is mainly caused by compounds of magnesium and calcium and is usually recognized by the increased quantity of soap required to produce lather.

TABLE D-1
SAMPLING STATION DATA AND INDEX
FOR
SURFACE WATER

Station	Station Number	Location ^a	Period of Record	Frequency of Sampling ^c	Sampled by ^d	Analysis on page
Big Creek above Pine Flat Dam	33a	12S/25E-4	July 1960	M	USCE	D-8, D-39
Chowchilla River near Raymond	11a	8S/18E-1	January 1962	S	DWR	D-9, D-39
Delta-Mendota Canal near Mendota	92	13S/15E-19	July 1952	M	DWR	D-10, D-39
Delta-Mendota Canal near Tracy	93	1S/4E-30	July 1952	M	DWR	D-11, D-39
Fresno River near Daulton	113	9S/19E-34	January 1958	S	DWR	D-12, D-39
Kaweah River below Terminus Dam	35	17S/28E-33	April 1951	M	USCE	D-13, D-39
Kern River near Bakersfield	36	29S/28E-9	April 1951	M	DWR	D-14, D-39
Kern River below Isabella Dam	36a	26S/33E-30	September 1955	Q	USCE	D-15, D-39
Kern River below Kernville	36b	25S/33E-15	September 1955	Q	USCE	D-16, D-39
Kings River below North Fork	33c	12S/26E-21	September 1955	Q	USCE	D-17, D-39
Kings River below Peoples Weir	34	17S/22E-1	April 1951	M	DWR	D-18, D-39
Kings River below Pine Flat Dam	33b	13S/24E-2	September 1955	Q	USCE	D-19, D-39
Merced River below Exchequer Dam	32a	4S/15E-13	April 1959	Q	DWR	D-20, D-39
Merced River near Stevinson	32	6S/9E-36	April 1951	M	DWR	D-21, D-39
Salt Slough at San Luis Ranch	24c	9S/11E-7	November 1958	M	DWR	D-22, D-40
San Joaquin River at Crows Land Bridge	26b	6S/9E-7	January 1962	M	DWR	D-23, D-40
San Joaquin River at Fremont Ford Bridge	25c	7S/9E-24	July 1955	M	DWR	D-24, D-40
San Joaquin River at Friant Dam	24	11S/21E-7	April 1951	Q	DWR	D-25, D-40
San Joaquin River near Grayson	26	4S/7E-24	April 1959	M	SF	D-26, D-40
San Joaquin River at Hills Ferry Bridge	25b	7S/9E-3	October 1958 ^e	M	DWR	D-27, D-40
San Joaquin River at Maze Road Bridge	26a	3S/7E-33	April 1951	M	SF	D-28, D-40
San Joaquin River near Mendota	25	13S/15E-7	April 1951	M	DWR	D-29, D-40
San Joaquin River at Patterson Bridge	27a	5S/8E-15	January 1962	M	DWR	D-30, D-40
San Joaquin River near Vernalis	27	3S/6E-13	April 1951	M	DWR	D-31, D-40
Stanislaus River near Mouth	29	3S/7E-17	April 1951	M	DWR	D-32, D-40
Stanislaus River below Tulloch Dam	29a	1S/12E-1	July 1956	Q	DWR	D-33, D-40
Tule River below Success Dam	91	17S/27E-26	July 1952	M	USCE	D-34, D-41
Tuolumne River below Don Pedro Dam	31a	3S/14E-20	April 1951	Q	SF	D-35, D-41
Tuolumne River at Hickman-Waterford Bridge	30	3S/11E-34	April 1951	M	SF	D-36, D-41
Tuolumne River at Tuolumne City	31	4S/8E-12	April 1951	M	SF	D-37, D-41

- a. Locations are in reference to Mt. Diablo Base and Meridian
b. Beginning of record
c. M - Monthly, B - Bimonthly, Q - Quarterly, S - Semiannually
d. DWR - Department of Water Resources
USCE - United States Corps of Engineers
SF - City & County of San Francisco
e. Discontinued as of July 1, 1963

TABLE D-2
ANALYSES OF SURFACE WATER

BIG CREEK ABOVE PINE FLAT DAM (STA. NO. 334)

Date and time sampled P.S.T.	Discharge Temp. in cfs	Dissolved oxygen ppm	Specific conductance (microhms/cm at 25°C)	Mineral constituents in equivalents per million										Total dissolved solids in ppm	Hardness as CaCO ₃ ppm	Tur- bid- ity MPN/ml	Analyzed by
				Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO ₃)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Fluo- ride (F)				
11/62	-	10.4	116			14		0.0	0.5		20			0.0			UICB
10/1 1030	70	10.4	116	0.92 ^c		0.01		0.0	0.70		0.26			0.0			
11/5 1130	1	10.2	93	0.76 ^c		12		0.0	0.3		15			0.1			
12/3 1030	-	10.7	73	0.76 ^c		11		0.0	0.2		13			0.0			
1-63				0.76 ^c		0.76		0.0	0.05		0.37			0.0			
2/11 1200	113	10.0	11			0.0		0.0	0.34		0.27			0.1			
3/4 1230	28	10.0	84	0.7 ^c		0.22		0.0	0.36		0.76			0.0			
4/1 1300	68	10.2	89	0.51 ^c		0.24		0.0	0.72		0.13			0.0			
5/6 1205	105	10.4	107	0.33 ^c		0.28		0.0	0.61		0.05			0.0			
6/4 1120	-	10.6	108	0.53 ^c		0.27		0.0	0.55		0.12			0.0			
7/8 1300	30	10.1	107	0.19 ^c		0.05		0.0	0.3		0.03			0.0			
8/12 1100	-	10.0	122	0.54 ^c		0.37		0.0	0.20		0.0			0.0			
9/1 1120	4	10.1	123	0.45 ^c		0.16		0.0	0.05		0.05			0.1			

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm.

d Arsenic (As), ethyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SRFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LDBPH).

TABLE D-3
ANALYSES OF SURFACE WATER

CHOWCHILLA RIVER NEAR RAYMOND (STA. NO. 114)

[illegible]

9 Field 0H.

Laboratory of H.

Sum of calcium and magnesium in eqm.

of arsenic (As), alkyl benzene sulfonate (ABS) and phosphate (PO) in sum of cationic and magnesium is given.

of Arsenic (As), alkyl benzene sulfonate (ABS), and formaldehyde in the TDS curves.

c Derived from conductivity vs IDS curves.

Determined by addition of a

g Gravimetric determination.

^h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, of United States Public Health Service.

Control District (SBCFCD); Metropolitan Water District of Southern California (MWD)

TABLE D-4

ANALYSES OF SURFACE WATER

DELTA-MENDOTA CANAL NEAR MENDOTA (SPA, NO. 92)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen in ppm	Specific conductance at 25°C	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent calcium ion	Hardness as CaCO ₃ in ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by			
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonates (CO ₃)	Bicarbonates (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)							Barium (Ba)	Silica (SiO ₂)	Other constituents
1962																								
10/5 0930	--	68	8.5	94	462	7.7	2.12 ^c	54	2.33	0.0	102	1.87	72	2.03		0.1		260 ^e	53	106	22	20	Median 53	
11/9 1130	--	62	9.6	98	885	8.2	3.88 ^c	106	4.61	0.0	146	2.39	146	4.12	--	--		500 ^e	54	194	74	25	Maximum .05	
12/7 1200	--	53	10.0	92	850	8.1	3.78 ^c	102	4.14	0.0	144	2.36	148	3.89		0.5		480 ^e	54	189	71	5		
1963																								
1/10 0900	--	46	14.5	122	808	8.2	3.56 ^c	94	4.09	0.0	134	2.20	135	3.81		0.3		456 ^e	53	178	68	20		
2/8 1030	--	57	11.4	110	988	8.0	4.16 ^c	115	5.00	0.0	145	2.36	164	4.63		0.8		557 ^e	55	208	89	15		
3/8 1330	--	58	9.4	92	496	7.6	2.07 ^c	54	2.35	0.0	87	1.43	66	1.86		0.4		280 ^e	53	103	32	35		
4/2 0900	--	58	10.6	104	716	8.0	3.40 ^c	87	3.77	0.0	102	1.87	103	2.91		0.4		404 ^e	51	170	86	40		
5/10 0830	--	66	9.1	97	303	7.3	1.8	31	1.35	0.0	68	0.71	36	1.02	0.2	0.0		185 ^e	46	78	22	70		
6/3 1220	--	68	8.0	88	173	7.9	0.90 ^e	16	0.70	0.0	44	0.72	18	0.31	0.0	0.0		97 ^e	44	45	9	50		
7/9 0905	--	74	7.5	87	340	7.7	1.66 ^c	34	1.83	0.0	72	1.18	24	0.80		0.1		184 ^e	47	83	24	60		
8/8 1345	--	78	7.0	84	297	8.2	1.85 ^c	28	1.22	0.0	87	1.43	32	0.90		0.1		168 ^e	40	93	22	65		
9/10 0710	--	73	6.9	79	461	8.0	1.15	44	1.91	0.0	107	1.75	62	1.75	0.1	0.1		273 ^e	45	115	27	25	As = 0.01 Pb = 0.15 As = 0.0	

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), allyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quad 17 of Water Beach (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of

TABLE D-5

ANALYSES OF SURFACE WATER

DELTA-MENDOTA CANAL NEAR TRACY (STA. NO. 93)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Specific conductance at 25°C	pH ^b	Mineral constituents in equivalents per million												Total dissolved solids in ppm	Percent carbonate in ppm	Hardness as CaCO ₃ Total ppm	Temp by therm °F	Coliform MPN/ml	Analyzed by
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Boron (B)	Silica (SiO ₂)						
1962																							
10/4	1700	68	9.1	100	662	7.7	370 ^c	78	3.39		0.0	140	2.25		111		0.1	374 ^e	53	150	35	Median 62	
11/9	860	61	9.2	93	840	7.7	170 ^c	5.0	0.22		0.0	148	2.43		140		0.2	474 ^e	54	188	67	Maximum 7000. Minimum 2.3	
11/14											0.0	127	2.08		120		0.2	412 ^e	55	148	44	15	
12/11	-	51	7.5	67	729	7.8	296 ^c	83	3.61		0.0	127	2.08		120		0.2						
1963																							
1/7	-	48	8.1	70	729	7.8	370 ^c	86	3.74		0.0	122	2.00		120		0.2	410 ^e	55	154	54	5	
2/7	870	55	8.1	76	281	7.1	110 ^c	28	1.22		0.0	30	0.82		31		0.2	136 ^e	53	55	14	95	
3/12	1660	57	8.5	82	689	7.6	298 ^c	75	3.26		0.0	104	1.70		92		0.2	388 ^e	52	149	64	20	
4/9	865	62	9.2	94	442	7.5	270 ^c	45	1.56		0.0	92	1.51		59		0.2	249 ^e	49	104	29	25	
5/7	1720	67	9.6	103	297	7.2	17	1.9	0.65	1.30	0.0	69	1.13		38		0.0	174 ^e	46	25	18	25	
13/15																		PO ₄ 0.25 ABS 0.00 As 0.01					
--																		14					
7/10	3308	74	7.9	91	240	7.8	130 ^c	22	0.96		0.0	63	1.03		15		0.1	135 ^e	42	65	13	45	
8/7	41.85	75	6.5	77	232	8.1	161 ^c	19	0.85		0.0	80	1.31		23		0.1	131 ^e	34	81	15	60	
08/30																							
9/10	1720	76	9.6	114	910	7.9	223 ^c	99	4.1	0.21	0.0	168	2.75		153		0.2	527 ^e	50	209	71	20	
12/60																		PO ₄ 0.50 ABS 0.01 As 0.00					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Arsenic (As), allyl benzene sulfonate (ABS), and phosphate (PO₄).

e Derived from conductivity vs. TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWSD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

ANALYSES OF SURFACE WATER

Date of sample P.S.T.	Discharge in cfs	Temp. in °F	Specific conductance, microhm/cm at 25°C	pH ^b	Mineral constituents in equivalents per million							parts per million			Total dissolved solids in ppm	Per- centage as CaCO ₃ Total H.C. ppm	Tur- bidity in ppm	Coliform bacteria MPN/ml	Analyzed by ^c		
					Cations						Anions		Fluo- ride (F)	Boron (B)						Silica (SiO ₂)	Other constituents ^d
					Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)									
1962																					
--										No sample taken - dry											
11/8 1250	6	68	9.1	100	262	7.8	1.04 ^e	3 ^a 1.30	0.0 0.00	98 ^a 0.95											
12/6 1200	1	51	11.0	98	227	7.7	1.02 ^c	25 ^a 1.69	0.0 0.00	56 ^a 0.52											
1963																					
1/9 1115	12	45	12.0	99	215	7.6	0.72 ^c	23 ^a 1.00	0.0 0.00	55 ^a 0.52											
2/7 1330	100	44	9.7	82	128	7.5	0.63 ^c	12 ^a 0.72	0.0 0.00	44 ^a 0.72											
3/6 1000	68	-	11.0	-	125	7.8	0.70 ^c	11 ^a 0.73	0.0 0.00	48 ^a 0.76											
4/3 1615	640	62	9.7	99	133	7.8	0.67 ^c	11 ^a 0.73	0.0 0.00	59 ^a 0.57											
5/4 0935	413	60	9.1	91	114	7.6	0.70 ^c	9.5 ^a 0.70	0.0 0.00	58 ^a 0.55											
6/3 0940	100	68	8.6	94	81	7.8	0.49 ^c	6.1 ^a 0.28	0.0 0.00	37 ^a 0.61											
--										- Not scheduled ^d -											
--										- Not scheduled ^d -											
--										- Not scheduled ^d -											

^h Annual median and range, respectively. Calculated from quarterly data. ⁱ Data were obtained from the following sources: ¹ Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFD); Metropolitan Water District of Southern California (MWDS); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH). ² Treated. ³ Untreated. ⁴ Treated. ⁵ Untreated. ⁶ Treated. ⁷ Untreated. ⁸ Treated. ⁹ Untreated. ¹⁰ Treated. ¹¹ Untreated. ¹² Treated. ¹³ Untreated. ¹⁴ Treated. ¹⁵ Untreated. ¹⁶ Treated. ¹⁷ Untreated. ¹⁸ Treated. ¹⁹ Untreated. ²⁰ Treated. ²¹ Untreated. ²² Treated. ²³ Untreated. ²⁴ Treated. ²⁵ Untreated. ²⁶ Treated. ²⁷ Untreated. ²⁸ Treated. ²⁹ Untreated. ³⁰ Treated. ³¹ Untreated. ³² Treated. ³³ Untreated. ³⁴ Treated. ³⁵ 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Treated. ³²⁵ Untreated. ³²⁶ Treated. ³²⁷ Untreated. ³²⁸ Treated. ³²⁹ Untreated. ³³⁰ Treated. ³³¹ Untreated. ³³² Treated. ³³³ Untreated. ³³⁴ Treated. ³³⁵ Untreated. ³³⁶ Treated. ³³⁷ Untreated. ³³⁸ Treated. ³³⁹ Untreated.

TABLE D-7

ANALYSES OF SURFACE WATER

KANEKI RIVER BELOW TEDIACIOUS DAM (STA. NO. 35)

Date and time sampled P.S.T.	Ochrones Temp in cts in °F	Dissolved oxygen ppm	Specific conductance (micromhos at 25°C)	Mineral constituents in equivalents per million										Total dissolved solids in ppm	Percent sodium as CaCO ₃ Total N.C. ppm	Turbidity MPN/ml	Coliform h	Analyzed by 1		
				Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)						Boron (B)	Silica (SiO ₂)
1962																				
10/2 1330	8	67	7.5	81	7.6	0.38 ^c	5.8 0.28 ^c	0.0	0.0	0.0	0.32	7.6 0.21	0.1		60 ^e	22	44	0	15	Median 23.
11/1 1330	6	64	11.6	121	8.0	0.39 ^c	6.1 0.27 ^c	0.0	0.0	0.0	0.38	5.5 0.16	0.0		92 ^e	23	46	0	3	Maximum 2400
12/5 1245	16	50	11.0	97	7.7	1.04 ^e	6.6 0.28 ^c	0.0	0.0	0.0	0.66	6.0 0.17	0.0		76 ^e	22	52	0	1	Minimum 0.13
1963																				
1/7 1000	425	43	9.5	77	7.6	1.10 ^e	8.0 0.33 ^c	0.0	0.0	0.0	1.23	8.2 0.23	0.1		93 ^e	24	55	0	1	
4/72 1125	45	45	11.0	91	6.5	0.30 ^c	2.1 0.09 ^c	0.0	0.0	0.0	0.16	1.4 0.04	0.1		43 ^e	23	13	2	10	
3/5 1000	350	46	11.0	92	85	0.35 ^c	3.7 0.16 ^c	0.0	0.0	0.0	0.39	2.8 0.08	0.0		63 ^e	21	30	0	3	
6/25 1430	625	46	10.0	84	77	0.36 ^c	3.8 0.17 ^c	0.0	0.0	0.0	0.42	1.1 0.03	0.0		66 ^e	23	48	0	2	
5/6 0740	1297	58	9.7	95	78	0.36 ^c	3.8 0.17 ^c	0.0	0.0	0.0	0.40	2.4 0.07	0.0		63 ^e	21	30	0	1	
6/3 1200	944	62	9.2	94	6.8	0.32 ^c	1.9 0.08 ^c	0.0	0.0	0.0	0.21	1.2 0.03	0.0		33 ^e	20	16	0	2	
7/1 1240	1540	62	11.0	112	6.8	0.32 ^c	2.1 0.09 ^c	0.0	0.0	0.0	0.20	1.2 0.03	0.0		32 ^e	22	16	0	2	
8/8 0930	868	65	8.3	89	6.7	0.40 ^c	2.6 0.11 ^c	0.0	0.0	0.0	0.43	1.5 0.04	0.1		46 ^e	22	20	0	4	
9/11 0740	80	72	7.5	81	6.8	0.26 ^c	1.5 0.12 ^c	0.0	0.0	0.0	0.46	2.8 0.08	0.3		63 ^e	18	36	0	3	

a. Field pH.

b. Laboratory pH.

c. Sum of calcium and magnesium in ppm.

d. Arsenic (As), alkyl benzene sulfonates (ABS), and phosphate (PO₄).

e. Derived from conductivity vs TDS curves.

f. Determined by addition of analyzed constituents.

g. Gravimetric determination.

h. Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i. Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBFCFD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-8

ANALYSES OF SURFACE WATER

KERN RIVER NEAR BAKERSFIELD (STA. NO. 36)

Date and time of sample P.S.T.	Discharge Temp in °C	Dissolved oxygen ppm	Specific conductance (microhms/cm at 25°C)	Mineral constituents in equivalents per million								Total dis- solved solid- s in ppm	Hardness as CaCO ₃ Total N.C. ppm	Tur- bidity in ppm	Coliform ^a MPN/ml	Analyzed by ^h
				Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO ₃)	Bicor- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trogen (NO ₃)	Fluo- ride (F)	Boron (B)	Other constituents (SiO ₂)	
1962																
10/4 0715	383	65 7.4	78	0.92 ^e		13 0.57		0.0 0.00	60 0.30							
11/7 1115	49	58 9.6	94	0.96 ^e		18 0.76		0.0 0.00	74 0.37							
12/5 1045	211	48 9.1	89	1.08 ^e		18 0.78		0.0 0.00	82 0.40							
1963																
1/4 1225	184	40 11.3	87	1.13 ^e		20 0.87		0.0 0.00	94 0.47							
1/31 1430	414	36 11.1	94	1.08 ^e		19 0.83		0.0 0.00	89 0.45							
3/8 1050	414	-- 10.5	--	0.81 ^e		13 0.57		0.0 0.00	63 0.32							
4/2 1215	598	55 10.7	102	0.92 ^e		12 0.52		0.0 0.00	64 0.32							
5/8 1200	920	65 9.3	98	0.80	1.0 0.08	13 0.57	2.3 0.08	0.0 0.00	62 0.31	1.3 0.27	6.2 0.31	0.7 0.01	0.4 0.02	0.2		
6/4 1005	735	65 9.0	95	0.77 ^e		9.6 0.42		0.0 0.00	56 0.28							
7/8 1115	2033	67 8.2	91	0.53 ^e		6.3 0.27		0.0 0.00	39 0.19							
8/8 1115	1566	73 7.2	83	0.62 ^e		7.2 0.31		0.0 0.00	45 0.22							
9/16 1100	981	74 8.1	101	0.50	2.2 0.18	8.3 0.36		0.0 0.00	51 0.25	5.0 0.25	3.5 0.16	3.6 0.06	0.4 0.02	0.0		

^a Field pH.^b Laboratory pH.^c Sum of calcium and magnesium in gpm.^d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)^e Derived from conductivity vs TDS curves^f Determined by addition of analyzed constituents.^g Gravimetric determination.^h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.ⁱ Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFD), Metropolitan Water District of Southern California (MWDSC), Los Angeles County Flood Control District (LACFCD), City of Long Beach, Department of Public Health (LPHPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

TABLE D-9
ANALYSES OF SURFACE WATER

KERN RIVER BELOW ISABELLA DAM (STA. NO. 364)

Date sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	%Sat	Specific conductance micromhos at 25°C	pH ^b	Mineral constituents in equivalents per million										Total solids in ppm	Per- cent as CaCO ₃ ppm	Hardness as CaCO ₃ ppm	Tur- bid- ity in ppm	Coliform bacteria per 100 ml	Analyzed by ^h
							Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potash (K)	Carbon- ate (CO ₃)	Bicar- bonate (HCO ₃)	Sulfate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Flu- oride (F)	Boron (B)	Silica (SiO ₂)				
1962	116	68	7.6	83	120	6.9	0.64 ^c		11	0.18	0.0	50		8.5			0.3		32	0	15	Median 23.
10/1 0930	-	62	8.4	86	113	7.1	0.72 ^c		8.3	1.08	0.0	54		4.0			0.1		36	0	2	Maximum 700.
11/1 1100	14	52	10.0	91	125	6.7	0.78 ^c		0.35		0.0	68		3.2			0.2		39	0	2	Minimum .09
12/3 1130																						
1963																						
1/2 1130	14	42	11.0	90	132	7.4	0.87 ^c		10	0.11	0.0	66		5.2			0.1		44	0	3	
2/4 1440	2	51	10.0	90	127	6.5	0.78 ^c		10	0.11	0.0	57		6.0			0.0		39	0	11	
3/1 1130	2	53	9.7	90	119	7.3	0.82 ^c		7.1	0.31	0.0	61		5.5			0.1		41	0	35	
4/2 0900	2	46	10.2	86	132	7.4	0.89 ^c		10	0.11	0.0	64		3.9			0.1		45	0	10	
5/1 0930	60	48	10.0	87	125	7.3	0.75 ^c	1.0	10	0.09	0.0	69	7.0	5.2	0.4	0.1	0.1	12	40	0	4	
6/6 1030	220	50	10.0	89	103	7.2	0.74 ^c	0.36	0.11	0.09	0.0	1.02	0.15	6.15	0.01	0.01	0.0		32	0	2	
7/2 1000	1563	57	9.5	93	77	7.2	0.78 ^c	0.33	0.33	0.06	0.0	34	0.0	3.5	0.11	0.0	0.0		24	0	3	
--	--	--	--	--	--	--	0.78 ^c	0.24	0.24		0.0	34	0.0	3.5	0.11	0.0	0.0		24	0	3	
--	--	--	--	--	--	--	0.78 ^c	0.24	0.24		0.0	34	0.0	3.5	0.11	0.0	0.0		24	0	3	

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

j Effective July 1963, this station sampled only in January, May, July and October.

TABLE D-10
ANALYSES OF SURFACE WATER

KEEN RIVER NEAR KEENVILLE (STA. 36b)

Date and time of sample P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Hardness as CaCO ₃		Turbidity in nptm	Coiform ^h MPN/ml	Analyzed by	
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonates (CO ₃)	Bicarbonates (HCO ₃)	Sulfate (SO ₄)	Sulfate (SO ₄)	Nitrate (NO ₃)	Fluoride (F)		Boron (B)	Silica (SiO ₂)				Other constituents d
1-62	-	59	9.2	91	7.2	0.60 ^c		13	0.57		0.0	28	8.0					92 ^e	42	40	0	Median 23.
10/1 0600	-										0.00	0.95	0.23		0.2							Maximum 100.
11/1 1030	-	73	9.6	88	7.5	0.73 ^c		15	0.65		0.0	66	6.2		0.1			102 ^e	45	39	0	Maximum 2.3
12/3 1030	-	41	11.1	87	7.4	0.74 ^c		17	0.74		0.0	77	7.0		0.2			120 ^e	44	47	0	1
1-63											0.00	1.25	0.20									
7/2 1115	166	35	12.3	87	7.7	1.24 ^c		17	0.74		0.0	82	8.4		0.1			123 ^e	37	62	0	5
2/4 1400	1484	42	11.0	87	7.1	0.54 ^c		7.5	0.33		0.0	40	4.0		0.0			63 ^e	38	27	0	4
3/1 1045	546	41	11.5	91	7.4	0.64 ^c		2.6	0.42		0.0	55	5.2		0.1			78 ^e	40	32	0	2
4/2 1030	761	36	12.2	87	7.4	0.70 ^c		2.5	0.41		0.0	57	3.2		0.1			79 ^e	37	35	0	5
5/1 0500	1137	49	10.2	90	7.1	0.45 ^c	1.7	7.5	0.33	1.4	0.0	47	5.0		0.0	20		74 ^e	34	29	0	3
6/6 0845	2769	48	10.4	90	6.9	0.25 ^c	0.14	0.45	0.04	0.0	0.00	20	2.0		0.0			29 ^e	35	13	0	2
7/2 1300	2804	34	11.8	91	6.7	0.23 ^c		3.2	0.14		0.0	16	3.2		0.0			26 ^e	38	12	0	1
--	--	--	--	--	--	--					0.00	0.25	0.07		0.0							
--	--	--	--	--	--	--																

a. Field pH

b. Laboratory pH

c. Sum of calcium and magnesium in ppm.

d. Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e. Derived from conductivity vs TDS curves.

f. Determined by addition of analyzed constituents.

g. Gravimetric determination.

h. Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i. Annual analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFD); Tempe Testing Laboratories, Inc. (TTL) for Category 1 constituents; and the following for Category 2 constituents: California Department of Public Health (CDPH); City of Long Beach, Department of Public Health (LADPH).

TABLE D-11

ANALYSES OF SURFACE WATER

KINGS RIVER BELOW NORTH FORK (STA. NO. 33c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Specific conductance ^b (micromhos at 25°C)	pH	Mineral constituents in equivalents per million											Total dis- solved solid- ity in ppm	Per- cent dis- solved ion in ppm	Hardness as CaCO ₃ Total N.C. ppm	Tur- bidity in ppm	Coliform ^c MPN/ml	Analyzed by																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO ₃)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Fluo- ride (F)	Boro- n (B)							Silica (SiO ₂)	Other constituents ^d																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄).

e Derived from conductivity vs. TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCTCD); Metropolitan Water District of Southern California (MWD), City of Los Angeles, Department of Water Resources (DWR), City of Long Beach, Department of Public Health (LBPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

j Effective July 1963, this station sampled only in January, May, July and October.

TABLE D-12

ANALYSES OF SURFACE WATER

WICKS RIVER BELOW PEOPLES VEIR (STA. NO. 34)

Date and time sampled P.S.T.	Oversurge Temp. in °F	Dissolved oxygen ppm	Specific gravity (micrometers at 25°C)	Mineral constituents in parts per million										Total dissolved solids in ppm	Percentages as CaCO ₃ Total in ppm	Hardness as CaCO ₃ in ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by
				Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)						
1962																			
4/35	67	8.9	97	62	7.3	3.3 0.30 ^e	0.0	0.0	29	2.6 0.07	0.0	0.0	0.0	1.3 ^e	26	20	0	10	Median 23
11/20						9.0 1.14 ^e	0.0	0.0	80	4.5 0.13	0.0	0.0	0.0	106 ^e	25	57	0	3	Maximum 680.
11/7	63	9.1	94	154	8.0	0.38	0.00	0.00	1.31	0.06	0.0	0.0	0.0	71 ^e	23	39	0	2	Minimum 0.62
12/5	10	8.9	82	104	7.5	5.4 0.23	0.0	0.0	52	2.0 0.06	0.0	0.0	0.0						
1800						0.78	0.00	0.00	0.78	0.06	0.0	0.0	0.0						
1963																			
1/4	11	10.6	93	105	8.0	5.7 0.25	0.0	0.0	52	3.6 0.10	0.1	0.0	0.0	72 ^e	25	38	0	2	
1/30						0.76	0.00	0.00	0.76	0.10	0.0	0.0	0.0						
2/6	90	8.6	74	171	7.8	9.2 0.40	0.0	0.0	74	8.2 0.23	0.0	0.0	0.0	117 ^e	25	60	0	40	
1500						1.19	0.00	0.00	1.21	0.06	0.0	0.0	0.0						
3/5	110	--	--	153	7.8	7.9 1.14 ^e	0.0	0.0	76	5.5 0.16	0.0	0.0	0.0	105 ^e	23	57	0	4	
4/2	163	9.4	94	116	7.7	0.34	0.00	0.00	1.25	0.10	0.0	0.0	0.0	80 ^e	24	42	0	5	
1520	60					6.2 0.27	0.0	0.0	55	3.4 0.10	0.0	0.0	0.0						
5/8	430	8.5	95	79	7.5	1.9 0.71 ^e	0.0	0.0	35	4.2 0.09	0.0	0.0	0.0	51 ^f	23	28	0	1	
1500						0.80	0.00	0.00	0.77	0.06	0.0	0.0	0.0						
6/4	1310	8.7	93	51	7.6	2.8 0.36	0.0	0.0	23	2.2 0.06	0.0	0.0	0.0	35 ^e	25	18	0	1	
1105						0.12	0.00	0.00	0.36	0.06	0.0	0.0	0.0						
7/8	2225	8.3	89	28	7.1	0.10	0.00	0.00	0.21	0.01	0.0	0.0	0.0	19 ^e	33	10	0	2	
1410						2.2 0.86	0.0	0.0	13	1.4 0.01	0.0	0.0	0.0						
8/8	2375	8.9	90	43	7.3	0.20	0.00	0.00	0.20	0.03	0.1	0.0	0.0	30 ^e	33	11	0	3	
0815						0.71 ^e	0.00	0.00	0.33	0.03	0.0	0.0	0.0						
9/16	1648	8.6	92	32	7.2	0.22	0.0	0.0	15	1.0 0.03	0.0	0.0	0.0	32 ^g	19	12	0	3	
1345						0.15 0.06	0.00	0.00	0.75	0.03	0.0	0.0	0.0						

Field OH

Laboratory pH

Sum of calcium and magnesium in ppm.

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO_4)

^c Derived from conductivity vs TDS curves.

(6) Determined by addition of analyzed constituents.

2. Geometric determination

9. Arithmetic mean and standard deviation. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

^a Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPDH); Terminal, Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-13

ANALYSES OF SURFACE WATER

KINGS RIVER BELOW FINE FLAT DAM (STA. NO. 330)

Date and time of sample P.S.T.	Discharge Temp in cfs	Dissolved oxygen ppm	Specific conductance (microhm/cm at 25°C)	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent total solids in ppm	Hardness as CaCO ₃ ppm	Turbidity in NTU	Corform MPN/ml	Analyzed by
					Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Boron (B)	Silica (SiO ₂)	Other constituents			
1:62	1038	68	10.0	110	31	6.9														
10/1																				
1240																				
11/5	50	66	11.0	118	30	6.7														
1400																				
12/3	-	60	11.2	102	31	7.4														
1300																				
1:63																				
1/4	205	45	10.4	87	34	7.0														
1340																				
2/11	21	58	9.5	93	69	7.1														
1400																				
3/4	177	52	10.8	98	54	7.0														
1430																				
4/1	776	48	10.9	95	43	6.6														
1350																				
5/6	1270	44	10.5	86	40	6.9														
1500																				
6/4	-	62	10.6	109	45	6.7														
1400																				
7/8	6880	60	10.2	102	23	6.7														
1500																				
--																				
--																				

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), allyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TD5 curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); California Department of Water Resources (DWR), as indicated.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); California Department of Water Resources (DWR), as indicated.

j Effective July 1963, this station sampled only in January, May, July and October.

ANALYSES OF SURFACE WATER

MERCED RIVER BELOW EXCHEQUER DAM (STA. NO. 32a)

[illegible]

Laboratory pH.

Sum of calcium and magnesium in eom.

Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO.)

^c Derived from conductivity vs. TDS curves.

Fig. 10. Derivation of combined conductivity curves.

Determined by addition of a

g Gravimetric determination.

Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBFCFD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of

ANALYSES OF SURFACE WATER

MERCED RIVER NEAR STEVINSON (STA. NO. 32)

[illegible]

b Laboratory pH

b Laboratory pH

Sum of calcium and magnesium in eqm.

Arsonic (As), alkyl benzene sulfonate (ABS), and phosphate (PO.)

e Derived from conductivity vs TDS curves

† Determined by addition of analyzed constituents.

- Determination of location of
- Geometric determination

9. Gravitimetric determination: Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

Annual median and range, respectively. Calculated from employees at respective sampling locations.

Metal analyses made by United States Geological Survey, Southern California Division, City of Long Beach, Department of Public Health (LADPH); Los Angeles Department of Water and Power (LADWP); City of Long Beach, Department of Central District (SRCECO); Metropolitan Water District of Southern California (MWD).

Caltrans District 0300, CDT, Metropolitan Transportation Authority, or California Department of Water Resources (DWR), as indicated.

TABLE D-16
ANALYSES OF SURFACE WATER

SALT SLough AT SAN LUIS RANCH (STA. NO. 24c)

Date and time sampled P.S.T.	Discharge in cfs in 1967	Dissolved oxygen ppm	Specific conductance at 25°C (microhm/cm)	Mineral constituents in equivalents per million										Total solids in ppm	Percent sodium	Hardness as CaCO ₃ ppm	Turbidity in NTU	Analyzed by
				Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Other constituents				
1962																		
10/5	25	65	9.8	104		250		0.0	217	203	353				61	350	172	Mediao
11/6						10.08		0.00	3.76	4.23	9.96							230.
11/9	54	65	7.1	75		248		0.0	234	256	303				59	369	177	Maximum
13/5						10.79		0.00	3.06	5.33	8.55							7070
12/7	18	54	11.8	110		254		0.13	237	229	460				60	429	284	Minimum
14/5						12.79		0.00	3.88	4.77	12.98							13.
1963																		
1/10	114	48	9.7	84		320		0.0	270	409	367				60	455	234	25
1050						13.32		0.00	4.43	8.52	10.35							
2/8	101	61	6.8	69		425		0.0	239	604	408				61	579	383	25
1210						13.49		0.00	3.92	12.93	13.77							
3/8	142	62	8.0	82		372		0.0	234	590	408				60	532	340	20
1500						16.18		0.00	3.04	12.26	11.51							
4/1	220	61	8.6	87		270		0.0	200	322	304				58	420	256	30
1500						11.74		0.00	3.29	8.16	8.58							
5/8	165	66	7.9	85		172		0.0	132	280	202				56	228	180	170
1445						2.67		0.00	2.16	5.70	0.10							
6/3	159	66	6.2	66		131		0.0	135	158	174				56	220	109	50
0930						5.70		0.00	2.21	4.91								
7/8	108	77	6.5	78		118		0.0	154	132	157				54	216	90	100
1330						5.13		0.00	2.52	4.43								
8/8	64	74	5.3	62		130		0.0	160		205				55	228	97	70
1210						5.06		0.00	2.62		5.18							
9/10	60	70	6.0	67		140		0.0	184	117	210				53	267	116	40
0940						2.60		0.00	3.02	2.44	5.32							

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBFCFD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LADPH); Terminal Traction Laboratories, Inc. (TTL) or California Department of Water Resources (CDWR), as indicated

ANALYSES OF SURFACE WATER

SAN JOAQUIN RIVER AT CHOWS LANDING BRIDGE (STA. NO. 266)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Specific conductance (microhm/cm at 25°C)	pH ^b	Mineral constituents in parts per million										Total dissolved in ppm	Hardness as CaCO ₃ ppm	Total N.C. ppm	Turbidity in ppm	Coliform ^h MPN/ml	Analyzed by ⁱ
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Boron (B)	Silica (SiO ₂)				
1962																					
10/4	--	68	9.2	100	836	3.70 ^c		168		0.0	163		136								
11/00								4,770		0.00	2,767		3,361								
11/8	--	60	9.1	91	1210	5.00 ^c		166		0.0	222		196								
11/15								7,222		0.00	3,164		5,553								
12/6	--	55	9.8	91	1540	6.13 ^c		202		0.0	206		255								
11/35								8,779		0.00	3,338		7,719								
1963																					
1/10	--	47	11.0	94	1280	5.00 ^c		170		0.0	237		195								
11/45								7,740		0.00	3,188		5,550								
2/7	--	56	7.3	70	718	2.87 ^c		93		0.0	133		94								
12/00								4,055		0.00	2,118		2,635								
3/7	--	57	8.9	86	1460	5.33 ^c		188		0.0	184		224								
11/30								8,718		0.00	3,082		6,332								
4/1	--	60	10.3	103	551	7.6	2.43 ^c	66		0.0	99		70								
12/00								2,770		0.00	1,582		1,597								
5/8	--	64	9.7	101	638	8.0	15	76	2.3	0.0	100	89	90	2.9	0.2	0.5	17				
11/15								3,331	0.06	0.00	154	1.85	2,534	0.05	0.01						
6/3	--	64	8.9	93	136	7.6	0.94 ^c	18		0.0	141		100								
11/45								0,768		0.00	0,772		0,76								
7/8	--	64	8.6	90	738	8.0		91		0.0	133		110								
09/45								3,596		0.00	2,118		3,310								
8/8	--	77	7.5	89	926	8.2	3.76 ^c	114		0.0	161		152								
10/20								4,596		0.00	2,069		4,729								
9/10	--	74	9.2	107	773	8.5	21	30	30	0.0	78	79	112	4.3	0.2	0.2	55				
12/50								3,592	0.08	0.37	2,231	1,645	3,316	0.07	0.01						

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs. TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

SAW JOAQUIN AT FREMONT FORD BRIDGE (STA. NO. 25c)

Field pH

b Laboratory pH

Sum of calcium and magnesium in epm.

Arsonic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

[illegible]

e Derived from conductivity vs IDS curves

Determined by addition of

g Gravimetric determination

^h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

ANALYSES OF SURFACE WATER

SAN JOAQUIN RIVER AT FULTON (CDA, NO. 24)

Date collected P.S.T.	Discharges in cfs	Temp in °F	Dissolved oxygen ppm	Specific conductance (microhm/cm at 25°C)	pH ^b	Mineral constituents in equivalents per million										Total dissolved solids in ppm	Hardness as CaCO ₃ Total N.C. ppm	Toxi- city MPN/ml	Analyzed by					
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potash- sum (K)	Carbon- ate (CO ₃)	Bicor- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Fluo- ride (F)					Boron (B)	Silica (SiO ₂)	Other constituents ^d		
1962																								
10/5	91	56	12.3	117	60	7.1	0.30 ^c	6.4	0.0	20	6.0	0.1			48 ^e	15	0	20	Median					
13/20								0.28	0.00	0.33	0.17								23. Maximum					
11/8	79	4.9	9.5	83	55	7.1	0.30 ^c	4.8	0.0	22	4.0	0.0			44 ^e	15	0	3	2400. Minimum					
11/45								0.21	0.00	0.36	0.11								1.3					
12/6	69	4.5	12.3	102	51	7.5	0.27 ^c	4.7	0.0	20	3.4	0.0			41 ^e	14	0	3						
10/40								0.26	0.00	0.33	0.10													
1963																								
1/9	63	51	12.1	108	48	7.2	0.26 ^c	3.7	0.0	19	3.9	0.1			39 ^e	13	0	4						
1/30								0.16	0.00	0.31	0.11													
2/7	50	41	11.0	86	62	7.1	0.31 ^c	4.7	0.0	23	5.8	0.0			50 ^e	17	0	20						
12/35								0.26	0.00	0.38	0.16													
3/6	74	-	11.0	-	47	7.3	0.23 ^c	3.5	0.0	18	3.8	0.0			38 ^e	12	0	8						
5/20								0.15	0.00	0.36	0.11													
4/4	61	57	13.7	132	52	7.3	0.28 ^c	4.2	0.0	20	4.8	0.0			42 ^e	14	0	7						
4/25								0.18	0.00	0.33	0.14													
5/9	63	50	7.7	68	59	6.7	0.21 ^c	4.5	0.0	22	3.8	0.1	10	PO ₄ 0.25	45 ^e	16	0	10						
6/30								0.11	0.00	0.36	0.11	0.04												
6/3	138	52	10.4	95	43	7.6	0.24 ^c	3.6	0.0	16	2.5	0.0			35 ^e	12	0	10						
6/25								0.16	0.00	0.26	0.10													
7/9	153	4.9	9.1	89	41	7.1	0.22 ^c	3.3	0.0	15	3.0	0.0			33 ^e	11	0	4						
6/45								0.11	0.00	0.25	0.08													
--									- Not scheduled ^d -															
--									- Not scheduled ^d -															

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonates (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBFCFD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated

j Effected July 1963, this station sampled only in January, May, July and October.

TABLE F D-20

ANALYSES OF SURFACE WATER

SAN JOAQUIN RIVER NEAR GRAYSON (STA. NO. 26)

Date and time sampled P.S.T.	Ore charge Temp in °C	Dissolved oxygen ppm	Specific microhardness at 25°C	pH	Mineral constituents in equivalents per million											Total dissolved acid in ppm	Per- centage of H ₂ O	Hardness as CaCO ₃ ppm	Tur- bidity ppm	Coliform MPN/ml	Analyzed by 1
					Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Boron (B)						
1962																				USGS	
10/18 1115	425	6.0	62	11.0	8.0	4.99 ^c	168 7.31			0.0 0.00	214 3.71	288 5.07									
--																					
12/10 1645	295	7.9	74	1720	7.9	7.42 ^c	212 9.22			0.0 0.00	298 4.23	282 7.52									
1963																					
1/7 1450	375	9.8	85	1560	8.2	6.49 ^c	200 8.70			0.0 0.00	236 3.67	302 4.72									
2/15 0955	4385	7.7	73	373	7.5	1.58 ^c	44 1.91			0.0 0.00	88 1.41	42 1.18									
3/8 1640	75	7.4	75	1420	7.8	5.68 ^c	194 8.44			0.0 0.00	196 3.21	210 3.52									
4/3 1345	2140	9.1	87	568	7.5	2.48 ^c	68 2.76			0.0 0.00	103 1.69	74 2.09									
5/6 0815	2050	6.4	70	531	7.5	21 1.05	60 2.61			0.0 0.00	103 1.69	70 1.97									
6/7 1145	3090	6.0	67	295	7.9	1.48 ^c	30 1.30			0.0 0.00	70 1.15	37 1.01									
7/1 1345	1150	7.3	86	767	8.0	3.38 ^c	91 3.96			0.0 0.00	132 2.16	114 3.22									
8/1 0950	450	8.3	99	1070	7.9	4.76 ^c	125 5.44			0.0 0.00	204 3.34	168 1.74									
9/6 1235	520	7.6	93	942	7.5	2.15	121 5.26			0.0 0.00	186 3.05	148 4.18									

Field off.

b Laboratory pH.

Sum of calcium and magnesium in e.p.m.

and Arsenic (As)-alkyl benzene sulfonate (ABS), and phosphate (PO.)

c Derived from conductivity vs TDS curves

^c Determined by addition of analyzed constituents.

Gravimetric determination.

^g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of appropriate monitoring samples made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Mitigation and Control District (SBCFD); and San Bernardino County Flood Mitigation and Control District (SBCFD).

[illegible]

Public Health (LBDPH): Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

ANALYSES OF SURFACE WATER

SAN JOAQUIN RIVER AT HILLS FERRY BRIDGE (STA. NO. 25b)

Date sample collected P.S.T.	Discharge in cfs in of	Temp in of	Dissolved oxygen ppm	Specific conductance micromhos at 25°C	pH	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent diss- olved in ppm	Hardness as CaCO ₃ ppm	Tur- bid- ity ppm	Coliform ^b MPN/ml	Analyzed by 1
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Pota- sium (K)	Carbon- ate (CO ₃)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Fluo- ride (F)	Boron (B)	Silico (SiO ₂)	Other constituents ^d			
1962																					
10/4	315	69	9.6	108	8.1	3.59 ^c		11.4	4.56	0.00	2.43	85	143								
12/30																					
11/8	260	61	8.5	86	8.0	3.52 ^c		18.4	8.00	0.00	2.23	148	226								
12/4																					
12/6	220	54	9.4	103	7.9	6.28 ^c		20.6	8.56	0.00	3.45	196	274								
12/15																					
1963																					
1/10	650	47	11.0	94	8.4	5.94 ^c		21.2	9.22	6.00	2.52	218	240								
12/15																					
2/7	1750	56	7.3	70	8.0	3.65 ^c		10.8	4.70	0.00	2.41	128	120								
12/40																					
3/7	738	58	9.0	88	8.2	9.52 ^c		36.0	15.56	0.00	4.26	465	422								
12/00																					
4/1	2045	61	9.7	98	7.9	4.10 ^c		24.1	8.13	0.00	2.39	313	133								
13/15																					
5/6	1720	66	10.1	108	8.0	4.2 ^c		16.4	4.0	0.00	1.41	219	202								
12/15																					
6/3	3700	66	8.9	100	4.38	1.388 ^c		5.0	7.13	0.00	2.31	4.36	5.70								
12/15																					

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonates (ABS), and phosphates (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

SSAN JOAQUITE RIVER AT MAZE ROAD BRIDGE (STA. NO. 26a)

a. Field pH
b. Laboratory pH
c. Sum of calcium and magnesium in ppm.
d. Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

BEAN JOAQUIN RIVER NEAR MENDOTA (STA. NO. 25)

^a Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Health District (SBCHD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-24
ANALYSES OF SURFACE WATER

SAN JOAQUIN RIVER AT PATTERSON BRIDGE (STA. NO. 276)

Date and time sampled P.S.T.	Oscororge Temp in °C in °F	Dissolved oxygen		Specific conductance ^a at 25°C	Mineral constituents in equivalents per million										Total dissolved solids in ppm	Percent as CaCO ₃ Total N.C. ppm	Tur- bidity as CaCO ₃ ppm	Coliform ^h MPN/ml Maximum 7	Analyzed by ⁱ	
		ppm	% Sat		Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potass- ium (K)	Carbon- ate (CO ₃)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Fluo- ride (F)						Silica (SiO ₂)
1962																		USGS		
10/4	67	7.7	83	820	8.0	1.14 ^c 4.96		0.0	174 ^c 2.85		130 ^c 3.67			0.2	490 ^e	59	174	31	15	Maximum 7000.
11/8	60	5.8	58	1340	8.1	1.80 ^c 7.83		0.0	234 ^c 3.04		221 ^c 6.23			0.4	807 ^e	59	270	78	5	Minimum
12/6	55	7.1	67	1570	7.8	2.08 ^c 9.05		0.0	210 ^c 3.44		272 ^c 7.67			0.7	945 ^e	59	312	140	10	
1963																				
1/11	660	10.6	86	1310	8.4	1.78 ^c 7.74		0.0	227 ^c 3.72		195 ^c 5.50			0.8	819 ^e	60	258	61	15	
2/7	2075	7.2	68	682	7.6	84 ^c 3.65		0.0	128 ^c 2.11		86 ^c 2.43			0.6	412 ^e	57	137	21	95	
11/30						182 ^c 7.92		0.0	181 ^c 2.97		208 ^c 5.87			1.2	851 ^e	60	261	113	20	
3/7	950	8.0	76	1380	8.0	52 ^c 2.26		0.0	94 ^c 1.54		65 ^c 1.83			0.4	308 ^e	50	112	35	35	
4/1	2200	9.6	96	513	7.7	93 ^c 4.05	2.6 0.07	0.0	119 ^c 1.95	111 ^c 2.13	131 ^c 3.13	3.3 0.05		0.5	459 ^e	56	154	56	60	
5/8	1475	9.4	98	762	7.6	32 ^c 1.60	1.8 1.45	0.0	50 ^c 0.82		22 ^c 0.62			0.1	117 ^e	44	50	9	20	
6/3	3700	8.6	91	197	7.5	18 ^c 0.78		0.0	143 ^c 2.34		114 ^c 3.22			0.2	448 ^e	56	164	47	9	
7/8	760	8.2	87	774	7.9	95 ^c 4.13		0.0	172 ^c 2.82		150 ^c 4.23			0.3	552 ^e	57	190	49	25	
09/10						117 ^c 5.09		0.0	164 ^c 2.69		114 ^c 3.22									
8/8	76	7.5	89	937	7.6	37 ^c 1.85	1.9 1.53	0.0	164 ^c 2.69	76 ^c 1.58	114 ^c 3.22	4.9 0.08		0.3	453 ^e	54	169	35	20	
9/10	73	8.5	98	776	7.8															
1300																				

^a Field pH

^b Laboratory pH

^c Sum of calcium and magnesium in eqm.

^d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

^e Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of

^f Determined by addition of analyzed constituents.

^g Gravimetric determination.

^h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

ⁱ Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of

TABLE D-25

ANALYSES OF SURFACE WATER

SAN JOAQUIN RIVER NEAR VERNALIS (STA. NO. 27)

Date and time sampled P.S.T.	Dissolved oxygen in %	Temp in °F	Oxidized oxygen in ppm	Specific conductance at 25°C	pH	Mineral constituents in equivalents per million											Total dissolved solids in ppm	Percent calcium in ppm	Hardness as CaCO ₃ in ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by ⁱ																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Boron (B)							Silica (SiO ₂)	Other constituents ^d																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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^a Field pH^b Laboratory pH^c Sum of calcium and magnesium in ppm^d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)^e Derived from conductivity vs TDS curves^f Determined by addition of analyzed constituents^g Gravimetric determination^h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Serviceⁱ Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-26

ANALYSES OF SURFACE WATER

STATESLAUS RIVER NEAR MOUTH (STA. NO. 29)

Date and time sampled P.S.T.	Discharge Temp. in cfs in °F	Dissolved oxygen ppm	Specific conductance in cfs at 25°C	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Per cent sodium	Hardness on CaCO ₃ Total N.C. ppm	Tur- bid- ity in ppm	Coliform MPN/ml	Analyzed by																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
					Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)							Boron (B)	Silica (SiO ₂)	Other constituents																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gasometric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by: United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of

ANALYSES OF SURFACE WATER

STATISLAUS RIVER BELOW TULLOCH DAM (STA. NO. 294)

Date and time sampled P.S.T.	Discharge in cfs in 4'	Temp in 4'	Dissolved oxygen ppm % Sat	Specific conductance at 25°C	pH ^b	Mineral constituents in equivalents per million										Total dissolved solids in ppm	Percent Total Solids ppm	Hardness Total Solids ppm	Turbid- ity in ppm	Analyzed by
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Boron (B)				
1-62																				
10/5	-	63	8.3	86	7.1	0.14 ^c		2.5 0.11		0.0	28 0.46		3.6 0.10			0.0	20	22	0	Median 21.0
10/6																				Maximum 40.0
11/9	145	60	8.2	82	7.0	0.14 ^c		1.8 0.08		0.0	28 0.46		3.2 0.03			0.0	15	22	0	Minimum 0.23
12/15																				
12/7	-	50	9.3	83	7.3	0.14 ^c		2.7 0.12		0.0	35 0.57		1.0 0.03			0.0	16	32	3	2
12/25																				
1963																				
1/8	-	47	10.6	91	64	0.52 ^c		2.0 0.09		0.0	34 0.56		0.8 0.02			0.0	15	26	0	2
10/35																				
2/15	878	51	10.6	95	49	0.38 ^c		1.7 0.07		0.0	22 0.36		1.0 0.03			0.1	16	19	1	1.0
11/30																				
3/11	-	56	10.8	105	51	0.37 ^c		2.2 0.10		0.0	24 0.39		1.8 0.05			0.0	21	18	0	5
11/15																				
4/3	1840	57	9.8	95	7.5	0.19 ^c		2.1 0.09		0.0	28 0.46		0.2 0.01			0.0	16	24	1	15
11/30																				
5/13	5066	56	12.1	115	59	0.26 ^c	1.7 0.11	2.2 0.10	0.6 0.02	0.0	32 0.52	3.1 0.07	1.6 0.05	0.1 0.01	0.0 0.00	0.0	16	25	0	3
12/15																				
6/3	4202	60	10.7	107	44	0.38 ^c		2.1 0.09		0.0	24 0.39		1.5 0.04			0.0	21	17	0	3
09/20																				
7/8	1800	60	9.7	97	42	0.32 ^c		2.0 0.09		0.0	22 0.36		1.5 0.04			0.0	22	16	0	2
08/30																				
--																				
--																				

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Annual analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBFCFD); Metropolitan Water District of Southern California (MWDSC); Los Angeles County Flood Control District (LACFCD); Los Angeles County Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LDBPH); Terminal Testing Laboratories, Inc. (TTL); California Department of Water Resources (DWR), as indicated.

j Effective July 1963, this section samples only in January, May, July and October

TABLE D-28

ANALYSES OF SURFACE WATER

TULE RIVER BELOW SUCCESS DAM (STA. NO. 91)

[illegible]

Field No.

He is a member of the

laboratory pH

2. Sum of edictum and magnestum 11 epm.

u arsenic (As), steklenjene sumpaste (As₂S₃)

e Derived from conductivity vs. \log curves

Determined by addition of

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by Coltrana Department of Public Health, Division of Laboratories, and United States Public Health Service. (11500). Illinois State Public Health Service.

Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior

ANALYSES OF SURFACE WATER

TUCULUME RIVER BELOW DON PEDRO DAM (STA. NO. 31a)

Date and time of sampling P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Specific conductance (micromhos at 25°C)	pH ^b	Mineral constituents in equivalents per million												Total dissolved solids in ppm	Per- cent calcium in ppm	Hardness as CaCO ₃ Total TNC ppm	Turbidity MPN/ml	Coliform MPN/ml	Analyzed by		
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbon- dioxide (HCO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Fluoride (F)	Barium (Ba)	Silica (SiO ₂)							Other constituents ^d	
1/4/62		61	7.7	78	27	7.0	0.16 ^c	1.5 0.07		0.0 0.00	10 0.16		2.4 0.07						21 ^e	30	8	0		Median 7500 Maximum 7000 Minimum 0.28	U355
10/18 1960																									
--																									
12/10 1960	2900	54	9.4	88	21	6.6	0.17 ^c	0.2 0.04		0.0 0.00	0 0.15	- No sample taken -	2.0 0.06						16 ^e	19	8	1	4		
1/4/63																									
1/7/63	2150	50	9.9	88	24	7.0	0.17 ^c	1.0 0.04		0.0 0.00	10 0.16		0.6 0.02						16 ^e	19	8	0	3		
1/10/63																									
2/14 1960	2800	49	10.3	90	32	6.5	0.21 ^c	1.5 0.07		0.0 0.00	13 0.21		1.8 0.05						24 ^e	23	12	-	40		
3/8 1965	760	49	9.7	85	37	7.0	0.28 ^c	1.4 0.06		0.0 0.00	16 0.26		1.6 0.05						28 ^e	18	14	-	5		
4/4 1965	1300	50	9.4	84	53	6.8	0.17 ^c	2.1 0.09		0.0 0.00	24 0.39		1.0 0.03						46 ^e	16	24	4	30		
5/6 1960	2500	51	9.3	84	60	7.0	0.31 ^c	3.0 0.13		0.8 0.04	30 0.47		2.2 0.06						46 ^e	21	24	0	3		
6/7 1960	4370	60	7.5	75	55	7.1	0.42 ^c	2.6 0.11		0.0 0.00	26 0.43		1.8 0.05						46 ^e	21	21	0	-		
7/1 0935	5820	59	4.0	40	46	7.0	0.34 ^c	2.4 0.10		0.0 0.00	20 0.33		2.0 0.06						35 ^e	23	7	1	1		
--																									
--																									

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm.

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBPH), Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR), as indicated.

j Effective July 1, 1963, this station sampled only in January, May, July and October.

TABLE D-30

ANALYSES OF SURFACE WATER

TUOLUMNE RIVER AT HICMAN-WATERFORD BRIDGE (STA. NO. 30)

Date discharge sampled P.S.T.	Discharge in cfs m ³ /s	Temp in °F	Dissolved oxygen ppm %Sat	Specific conductance in micromhos at 25°C	pH ^b	Mineral constituents in parts per million											Total dissolved solids in ppm	Per- cent total in ppm	Hardness as CaCO ₃ Total ppm	Tur- bidity in ppm	Coliform ^b MPN/ml	Analyzed by ^c
						equivalents per million																
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO ₃)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Ni- trate (NO ₃)	Fluo- ride (F)	Boron (B)						
4/2 10/13/60	-	65	6.0	85	140	7.0	0.60 ^e	11 0.15	0.0 0.00	32 0.52	21 0.59	0.0	0.0	0.0	0.0	68 ^e	44	30	4	15	Median 230 Maximum 1000 Minimum 2-3	USGS
-- 12/10/60	448	54	5.5	89	67	7.0	0.76 ^e	13.3 0.23	0.0 0.00	18 0.30	10 0.28	- No sample taken -	0.0	0.0	0.0	39 ^e	39	18	3	2		
1963																						
1/7/64	-	51	0.2	93	102	7.5	0.72 ^e	8.8 0.38	0.0 0.00	29 0.48	15 0.42		0.0	0.0	0.0	59 ^e	42	26	2	1		
2/14/64	608	52	1.6	105	59	6.8	0.30 ^e	3.8 0.17	0.0 0.00	21 0.34	5.0 0.14		0.0	0.0	0.0	34 ^e	31	19	2	60		
3/30/64	504	54	0.7	101	127	7.1	0.67 ^e	0.4 0.13	0.0 0.00	33 0.54	23 0.59		0.0	0.0	0.0	74 ^e	39	33	6	10		
4/3/64	7120	57	10.6	103	75	7.1	0.71 ^e	2.2 0.26	0.0 0.00	34 0.56	8.4 0.24		0.0	0.0	0.0	55 ^e	30	30	2	5		
7/6/64	780	74	11.2	111	7.6	8.6 0.43	0.35 ^e	8.0 0.35	0.0 0.00	40 0.66	1.5 0.42		0.1 0.00	0.0 0.00	15 PO ₄ 0.00	79 ^e	30	39	6	3		
7/14/64	774	64	7.9	85	6	7.8	0.47 ^e	11 0.15	0.0 0.00	42 0.67	6.0 0.17		0.0	0.0	0.0	52 ^e	53	21	0	4		
6/2/64	63	63	7.1	74	56	7.7	0.35 ^e	3.8 0.17	0.0 0.00	29 0.36	7.6 0.21		0.0	0.0	0.0	34 ^e	33	18	0	1		
7/1/64	104	84	7.1	84	49	7.1	0.70 ^e	5.2 0.26	0.0 0.00	104 1.76	102 2.88		0.1			299 ^e	52	105	20	3		
8/1/64	46	76	9.9	119	4.9	8.0	0.88 ^e	21 0.22	0.0 0.00	108 1.77	100 2.82		0.4 0.03	0.0 0.00	PO ₄ 0.25 AS 0.00 As 0.02	306 ^e	48	114	25	5		
11/30/64																						

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), alkyl benzene sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Long Beach, Department of

ANALYSES OF SURFACE WATER

TUOLUMNE RIVER AT TUOLUMNE CITY (STA. NO. 31)

Date on which sampled P.S.T.	Discharge Temp in °F in c/F	Dissolved oxygen ppm	Specific conductance at 25°C	pH	Mineral constituents in equivalents per million										Total solids in ppm	Per- cent Total in ppm	Hardness as CaCO ₃ Total in ppm	Tur- bid- ity in ppm	Analyzed by
					Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Chlor- ide (Cl)	Bor- on (B)	Sili- ca (SiO ₂)	Other constituents ^d	No. of ir- r- i- d- e- n- t- s	Fluor- ide (F)					
1962																			
10/19	94.5	4.8	370	7.0	1.60 ^c		4.1		76						212 ^e	53	80	15	USGS
11/25							1.78		2.14										
12/11	1500	8.1	75	7.1	0.89 ^c		1.9		32						112 ^e	48	144	4	
09/00							0.83		1.11										
1963																			
1/7	925	8.7	78	7.3	1.11 ^c		3.1		6.1						181 ^e	48	72	3	
1/4/65	4700	9.5	87	6.5	0.11 ^c		2.7		1.1						45 ^e	34	22	6	
2/15							1.25		0.31										
6/15									0.31										
3/8	975	7.3	71	7.0	1.51 ^c		5.0		6.6						191 ^e	70	75	23	
17/20							1.52		1.86										
1/3	100	8.3	79	7.2	0.94 ^c		1.3		2.4						92 ^e	38	47	13	
11/5							0.57		0.67										
5/6	1180	7.3	74	7.3	0.85 ^c		1.4		2.4						107 ^e	38	50	6	
6/8/48							0.33		0.61										
6/7	1675	5.9	64	7.4	1.04 ^c		3.7		0.74						112 ^e	42	52	15	
2/15							0.78		0.74										
7/1	70	4.8	53	7.3	0.87 ^c		1.8		3.7						109 ^e	47	44	14	
12/00							0.78		1.04										
8/1	425	8.4	100	7.4	3.36 ^c		9.1		1.68						457 ^e	34	168	45	
10/40							3.76		2.16										
9/6	375	5.8	70	7.4	50	1.4	4.6		1.62						513 ^e	52	182	49	
1310							4.73		5.11										

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in ppm

d Arsenic (As), ethyl borate sulfonate (ABS), and phosphate (PO₄)

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFD); Metropolitan Water District of Southern California (MWSD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-32
SPECTROGRAPHIC ANALYSES OF SURFACE WATER

Station	Site No	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
San Joaquin River at Fremont Ford Bridge	25c	5-8 9-10	137 7.3	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	7.3 5.8	6.7* 13*	1.3* 0.67*	3.3* 7.3	1.6 13	1.3* 2.7	3.3* 3.3*	1.3* 1.3*	15 15	6.7* 13*
	27	5-8 9-10	51 9.3	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	19 6.2	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3	1.3* 2.6*	3.3* 3.3*	1.3* 1.3*	11 13	6.7* 13*
	29	5-8 9-10	247 11	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	19 11	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 0.67**	1.3* 0.67**	3.3* 3.3*	1.3* 1.3*	5.1 12	6.7* 13*
Tuolumne River at Tuolumne City	31	5-6 9-6	45 8.0	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	15 100***	6.7* 13*	1.3* 0.67*	3.3* 10	1.3* 0.67**	1.3* 1.5	3.3* 3.3*	1.3* 1.3*	10 14	6.7* 13*
	32	5-8 9-10	79 15	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	35 19	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 2.1	1.3* 1.7	3.3* 3.3*	1.3* 1.3*	6.7* 13*	6.7* 13*
	34	5-6 9-16	223 11	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	33 17	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 0.67**	1.3* 0.67**	3.3* 3.3*	1.3* 1.3*	6.7* 13*	6.7* 13*
Kern River near Bakersfield	36	5-9 9-16	150 10	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	17 9.3	6.7* 13*	1.3* 0.67*	3.3* 3.3*	5.2 4.0	1.3* 2.2	3.3* 3.3*	1.3* 1.3*	6.7* 13*	6.7* 13*
	91	5-6 9-9	26 13	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	19 12	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 0.67**	1.3* 4.1	3.3* 3.3*	1.3* 1.3*	6.7* 7.3	6.7* 13*
	92	5-10 9-10	39 153	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	16 38	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 0.67**	1.3* 1.3	3.3* 3.3*	1.3* 1.3*	12 19	6.7* 13*
Delta Mendota Canal near Tracy	93	5-7 9-10	47 6.7	1.3* 1.3*	1.3* 0.67*	3.3* 3.3*	1.3* 3.3*	1.3* 3.3*	3.3* 3.3*	15 6.7	6.7* 13*	1.3* 0.67*	3.3* 3.3*	1.3* 4.0	1.3* 2.6	3.3* 3.3*	1.3* 1.3*	15 17	6.7* 13*

Note: * For all stations in the south of May, silver was reported as: Silver (Ag) = 5.0*

* Results are less than the figure listed.

** Results are equal to, but slightly less than the figure indicated.

*** Results are more than the figure listed.

Station	Sta. No	Date	Picouries per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Big Creek above Pine Flat Dam	33a	5/6	0.0 ± 0.2	0.0 ± 0.2	3.9 ± 4.8	3.7 ± 4.8
Chowchilla River near Raymond	114	5/9 10/7	0.0 ± 0.2 0.3 ± 0.4	0.8 ± 0.3 0.1 ± 0.3	21.6 ± 4.9 8.2 ± 6.0	102.4 ± 5.9 1.5 ± 6.0
Delta-Mendota Canal near Mendota	92	5/10 9/10	0.1 ± 0.4 0.7 ± 0.4	1.4 ± 0.6 0.5 ± 0.4	11.6 ± 6.4 0.6 ± 6.0	32.6 ± 6.7 4.0 ± 6.1
Fresno River near Daulton	113	5/9 10/7	0.0 ± 0.2 0.0 ± 0.3	1.2 ± 0.4 0.0 ± 0.3	9.4 ± 4.8 8.1 ± 5.9	33.9 ± 5.1 9.5 ± 6.0
Kaveah River below Terminus Dam	35	5/6	0.2 ± 0.2	0.1 ± 0.2	12.3 ± 5.0	5.1 ± 4.9
Kern River near Bakersfield	36	9/11 5/6	0.0 ± 0.3 0.5 ± 0.3	0.0 ± 0.3 0.9 ± 0.4	0.0 ± 6.2 0.0 ± 6.5	0.0 ± 6.2 4.2 ± 6.6
Kern River below Isabella Dam	36a	5/1	0.2 ± 0.2	0.3 ± 0.3	14.4 ± 4.9	15.6 ± 4.9
Kern River below Kernville	36b	5/1	0.1 ± 0.2	0.2 ± 0.3	12.5 ± 4.8	8.4 ± 4.8
Kings River below North Fork	33c	5/6	0.0 ± 0.3	0.3 ± 0.4	3.9 ± 6.4	8.1 ± 6.4
Kings River below Peoples Weir	34	5/5 9/16	0.1 ± 0.2 0.0 ± 0.2	0.1 ± 0.2 0.1 ± 0.3	9.4 ± 4.8 4.1 ± 6.2	8.6 ± 4.8 1.4 ± 6.2
Kings River below Pine Flat Dam	33b	5/6	0.0 ± 0.6	0.0 ± 0.6	0.0 ± 6.2	5.9 ± 6.3
Merced River below Exchequer Dam	32a	5/9	0.1 ± 0.2	0.0 ± 0.2	14.5 ± 4.9	9.2 ± 4.9
Merced River near Stevinson	32	5/8 9/10	0.1 ± 0.2 0.6 ± 0.4	0.2 ± 0.2 0.4 ± 0.4	9.3 ± 4.8 6.8 ± 6.0	13.2 ± 4.9 8.6 ± 6.0
Salt Slough at San Luis Ranch	24c	5/8 9/10	0.5 ± 0.4 0.4 ± 0.4	0.7 ± 0.5 1.0 ± 0.5	2.3 ± 6.7 8.0 ± 6.0	0.0 ± 6.7 6.5 ± 6.0

TABLE D-33
RADIOASSAYS OF SURFACE WATER

Station	Sta No	Date	Picouries per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
San Joaquin River at Crows Landing Bridge	26b	5/8 9/10	0.3 \pm 0.2 0.7 \pm 0.5	0.5 \pm 0.2 0.2 \pm 0.4	14.5 \pm 4.8 10.7 \pm 6.3	18.5 \pm 4.8 3.2 \pm 6.2
San Joaquin River at Fremont Ford Bridge	25c	5/8 9/10	0.8 \pm 0.3 0.3 \pm 0.5	0.4 \pm 0.2 0.3 \pm 0.5	18.6 \pm 4.8 3.8 \pm 6.2	12.4 \pm 4.7 6.3 \pm 6.2
San Joaquin River at Friant Dam	24	5/9	0.0 \pm 0.4	0.1 \pm 0.5	0.7 \pm 6.6	0.4 \pm 6.6
San Joaquin River near Grayson	26	5/6 9/6	0.6 \pm 0.3 0.4 \pm 0.4	0.7 \pm 0.3 0.1 \pm 0.3	11.5 \pm 4.9 7.3 \pm 6.2	20.3 \pm 5.0 7.6 \pm 6.2
San Joaquin River at Hills Ferry Br.	25b	5/8	0.3 \pm 0.2	0.6 \pm 0.2	13.2 \pm 4.8	16.4 \pm 4.8
San Joaquin River at Maze Road Bridge	26a	5/6 9/6	0.3 \pm 0.2 0.6 \pm 0.5	0.4 \pm 0.3 0.2 \pm 0.4	8.5 \pm 4.8 5.8 \pm 6.2	15.0 \pm 4.9 2.3 \pm 6.2
San Joaquin River near Mendota	25	5/14 9/10	0.6 \pm 0.4 0.0 \pm 0.4	0.7 \pm 0.5 0.6 \pm 0.5	6.9 \pm 6.2 5.6 \pm 6.0	20.5 \pm 6.5 2.5 \pm 6.0
San Joaquin River at Patterson Bridge	27a	5/8 9/10	0.1 \pm 0.5 0.4 \pm 0.4	0.7 \pm 0.6 0.3 \pm 0.4	11.4 \pm 6.6 10.7 \pm 6.1	9.6 \pm 6.5 3.1 \pm 6.0
San Joaquin River near Vernalis	27	5/8 9/10	0.2 \pm 0.3 1.0 \pm 0.6	0.7 \pm 0.4 0.6 \pm 0.6	10.0 \pm 6.6 9.9 \pm 6.1	7.7 \pm 6.6 3.9 \pm 6.0
Stanislaus River near Mouth	29	5/8 9/10	0.0 \pm 0.2 0.1 \pm 0.3	0.5 \pm 0.3 0.2 \pm 0.4	14.8 \pm 4.8 5.5 \pm 6.1	20.2 \pm 4.9 1.4 \pm 6.0
Stanislaus River below Tulloch Dam	29a	5/13	0.0 \pm 0.4	0.0 \pm 0.3	5.7 \pm 6.3	16.0 \pm 6.5
Tule River below Success Dam	91	5/6 9/9	0.1 \pm 0.2 0.0 \pm 0.3	0.0 \pm 0.1 0.0 \pm 0.2	14.7 \pm 4.9 3.2 \pm 6.2	2.2 \pm 4.7 0.2 \pm 6.2

Station	Sta No	Date	Pico curies per liter			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Tuolumne River below Don Pedro Dam	31a	5/6	0.1 \pm 0.2	0.0 \pm 0.2	18.3 \pm 5.0	23.9 \pm 5.0
Tuolumne River at Hickman-Water Ford Bridge	30	5/6	0.1 \pm 0.4	0.4 \pm 0.4	11.3 \pm 6.4	10.5 \pm 6.4
Tuolumne River at Tuolumne City	31	5/6 9/6	0.2 \pm 0.2 0.8 \pm 0.5	0.7 \pm 0.3 0.2 \pm 0.4	6.3 \pm 4.9 6.5 \pm 6.3	11.3 \pm 5.0 4.0 \pm 6.2



APPENDIX E

GROUND WATER QUALITY



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INTRODUCTION

This appendix contains data pertaining to the ground water quality conditions in the San Joaquin valley area. The data consist of the chemical and radiological characteristics of those waters sampled. The analyses represent those constituents determined as most significant in the evaluation and/or surveillance of ground water quality. These data are listed on tables and portrayed on plates.

EXPLANATION OF TABLES

All data in the Appendix E Tables are listed by ground water basin or area which are shown on Plate E-1. The order is by the corresponding number found under the name. Following this breakdown the wells are tabulated numerically by state well numbers as explained on page C-6.

Table E-1 lists the mineral analyses of the selected wells for the area reported in this volume. The following tabulation indicates the tests made and the properties and constituents usually determined in the two types of mineral analyses.

Constituents and properties	: A n a l y s i s :	
	: Standard : Partial :	: mineral : mineral :
Specific conductance	x	x
pH	x	
Total dissolved solids	x	
Percent sodium	x	
Hardness	x	x
Temperature	x	x
Calcium	x	
Magnesium	x	
Sodium	x	x
Potassium	x	
Carbonate	x	
Bicarbonate	x	
Sulfate	x	
Chloride	x	x
Nitrate	x	
Fluoride	x	
Boron	x	x
Silica	x	

The standard mineral analysis is made on the samples of wells either new to the program or whose previous analyses have been unstable from year to year requiring a more complete history before partial analysis would be suitable. A partial mineral analysis is suitable when a satisfactory history on the well has been established and a detailed analysis is not required to maintain surveillance.

Heavy metal analyses are shown on Table E-2 and list other important constituents not determined in a standard mineral analysis. These constituents, though small in quantity, can be of significance for various types of water usages.

Radioassay analyses are shown on Table E-3. The type of test conducted was for gross radioactivity since the purpose is mainly for reconnaissance by random sampling and a detailed analysis is not required.

Two constituents not normally determined, ABS (detergents) and lithium, were analysed for in selected samples, and are shown on Table E-4. ABS determinations are made because of their use as an indicator of pollution. Lithium was determined in response to a request from the Kern County Farm Advisor because it has a detrimental effect similar to that of boron on citrus and other fruit trees.

Wells whose analyses differ significantly from other wells in the surrounding area are listed in Table E-5. This deviation may be in a single constituent or it may be the complete analysis. Special effort is made to investigate these wells to determine the reason for the observed deviations.

EXPLANATION OF PLATES

The locations of the selected sampling wells and the selected wells for water measurements are shown on Plate C-3.

EXPLANATION OF PLATES (Continued)

The ground water basins and areas sampled during this reporting period are shown on Plate E-1 with their corresponding name and number. Plate E-2 shows the "Lines of Equal Electrical Conductivity of Ground Water" in the San Joaquin Valley. These contours are based on analyses listed on Table E-1 and represent the quality of water from the principal pumped zone in the valley. Contours were not drawn for Panoche, Tehachapi, and Cummings Valleys because of the lack of data.

Plate E-3 shows the types of water in the San Joaquin area and is based on the analyses listed on Table E-1.

EXPLANATION OF HEADINGS AND SYMBOLS USED IN TABLE E-1

State Well Number--The well numbering system used in this report for the location of wells is explained on page C-6.

Region, Basin, and Area Designation--The region used in this report and shown on Plate E-1, "Ground Water Quality Basins and Areas, San Joaquin Valley," is a geographic area and is defined in Section 13040 of the Water Code as Central Valley region. A decimal system of the form 0-00.00 has been used for basin numbering. The number to the left of the dash refers to the geographic region. On the right of the dash the first two digits refer to a hydrographic unit, generally designated as a basin, valley, or area. These are followed by decimals which designate a subbasin, area, or subarea within the basin, valley, or area. An example is given below:

5-22.20 The number 5 indicates the Central Valley region.

The number 22 indicates the San Joaquin Valley.

The number 20 indicates the Lower Kings River area.

Agency supplying data--The numbers in this column are the code numbers for the agency that sampled the well.

The last three digits of the agency code are numbers that designate, within specified serial limits, the type of agency from which the data were obtained, as follows:

<u>Code</u>	<u>Type of Agency</u>
000 through 049	Federal
050 through 099	State
100 through 199	County
200 through 399	Municipal
400 through 699	District--Water, Irrigation, Conservation, etc.
700 through 999	Private

The cooperating agencies, and code numbers assigned to them, are listed in the following tabulation:

<u>Agency Code</u>	<u>Agency</u>
5000	U. S. Geological Survey
5050	Department of Water Resources
5122	Stanislaus County Farm Advisor
5123	Tulare County Farm Advisor
5124	Kern County Farm Advisor
5126	Kings County Farm Advisor
5524	Turlock Irrigation District
5525	Merced Irrigation District
5631	Fresno Irrigation District
5640	Buena Vista Water Storage District
5641	Central California Irrigation District

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number		Temp. when sampled °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
Date sampled	Agv. Coli.				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Computed Evap 180°C	Total hardness CaCO ₃
SAN JOAQUIN VALLEY					52200													
OAKDALE IRRIGATION					52206													
25/10E-30 1 M	73	7.3	57	9	1	0.08	0.09	2	1	0	27	3	0.0	0.1	0.00	10	42	27
8-19-63 5122				69	12		14	5	0.03	76	10	0.08					37	
25/10E-10B 1 M	72	--	146	--	--	--	0.35	8	--	--	--	2	--	--	0.00	--	--	55
8-14-63 5122												0.06						
25/10E-27H 1 M	71	--	409	--	--	--	26	--	--	--	--	14	--	--	0.00	--	--	153
8-14-63 5122							1.13					0.39						
35/10E-13A 1 M	71	7.0	49	7	1	0.08	0.09	2	1	0	24	6	1.8	0.1	0.00	10	43	22
6-28-63 5122				64	15		16	5	0.03	65	20	0.06	0.03				36	
MODESTO IRRIGATION					52207													
35/ 7E-13A 1 M	64	8.3	530	24	26	48	2.09	4	5	228	18	27	22.0	0.1	0.10	48	534	167
6-26-63 5050				1.20	2.14	39	38	0.10	0.17	3.74	7	0.76	0.32				322	
35/ 7E-24J 1 M	63	--	534	--	--	--	73	--	--	--	--	18	--	--	0.20	--	--	118
6-26-63 5050							3.17					0.51						
35/ 8E-6N 1 M	64	--	536	--	--	--	52	--	--	--	--	26	--	--	0.30	--	--	142
6-26-63 5050							2.26					0.73						
35/ 8E-9C 1 M	63	--	457	--	--	--	24	--	--	--	--	11	--	--	0.20	--	--	179
6-26-63 5050							1.04					0.31						
35/ 8E-20J 1 M	63	--	521	--	--	--	34	--	--	--	--	18	--	--	0.30	--	--	192
6-26-63 5050							1.48					0.51						

* TDS by Evap at 105°C

TABLE E - 1
ANALYSES OF GROUND WATER
1963

State well number		Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent				Mineral constituents in parts per million				
Date sampled	Ag. Colli.				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- ca SiO ₂	I.D.S. Computed Evap.180% CaCO ₃	Total hardness CaCO ₃
SAN JOAQUIN VALLEY MODESTO IRRIGATION DIST					52200	52207 (CONTINUED)												
35/ 8E-23E 1 M 9-12-63 5050		66	--	472	--	--	32 1.39	--	--	--	--	14 0.39	--	--	--	0.10	--	172
45/ 8E-5P 1 M 6-27-63 5050		63	8.1	700	34 1.70 23	17 1.40 19	93 4.04 56	4 0.10 1	0	210 3.54 50	12 0.25 4	108 3.05 43	12.0 0.19 3	0.1	0.50	40	427 414	155
45/10E-1D 1 M 7-30-63 5122		70	--	392	--	--	40 1.74	--	--	--	--	59 1.66	--	--	0.30	--	84	
TURLOCK IRRIGATION DIST					52208													
45/ 8E-24A 1 M 9-18-63 5524		66	8.0	753	54 2.69 37	16 1.32 18	71 3.09 43	3 0.08 1	0	191 3.13 45	14 0.29 4	114 3.21 46	24.0 0.39 6	--	0.05	--	390 433	201
45/ 8E-27L 1 M 9-18-63 5524		66	8.0	1440	63 3.14 20	16 1.32 9	250 10.87 70	4 0.10 1	0	240 3.93 26	82 1.71 11	357 9.50 63	2.6 0.04	0.1	0.40	31	904 882	223
45/ 9E-20A 1 M 9-18-63 5524		66	--	535	--	--	45 1.96	--	--	--	--	40 1.13	--	--	0.20	--	158	
45/ 9E-25A 1 M 9-26-63 5524		67	--	433	--	--	33 1.43	--	--	--	--	20 0.56	--	--	0.00	--	137	
45/ 9E-30R 1 M 9-19-63 5524		--	--	643	--	--	75 3.26	--	--	--	--	42 1.10	--	--	0.00	--	158	
45/11E-5M 2 M 9-5-63 5122		--	--	255	--	--	48 2.09	--	--	--	--	32 0.90	--	--	0.20	--	8	

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	TDS Computed Evap. 180°C CaCO ₃	Total hardness CaCO ₃
SAN JOAQUIN VALLEY TURLOCK IRRIGATION DIST				52200	52208 (CONTINUED)												
4S/11E-21D 1 M 9-19-63 5524	67	--	196	--	--	17 0.74	--	--	--	--	4 0.11	--	--	0.00	--	60	
4S/11E-31E 1 M 9-18-63 5524	67	--	320	31 1.55 44	8 0.66 19	29 1.26 36	2 0.05 1	0	156 2.56 76	8 0.17 5	8 0.23 7	26.0 0.42 12	0.1	0.00	47	236 256	111
5S/ 9E- 1R 1 M 9-20-63 5524	67	--	890	--	--	127 5.52	--	--	--	--	134 3.78	--	--	0.10	--	153	
5S/ 9E- 9A 1 M 9-20-63 5524	65	--	550	--	--	51 2.22	--	--	--	--	24 0.68	--	--	0.20	--	162	
5S/ 9E-13G 1 M 9-20-63 5122	65	--	556	--	--	52 2.26	--	--	--	--	26 0.73	--	--	0.00	--	169	
5S/10E- 4F 1 M 9-23-63 5524	66	--	536	--	--	42 1.83	--	--	--	--	20 0.56	--	--	0.10	--	180	
5S/10E-23E 1 M 6-27-63 5050	74	8.4	570	45 2.25 35	26 1.14 33	45 1.96 30	3 0.08 1	6 0.20 3	217 3.56 57	27 0.56 9	55 1.53 25	21.0 0.34 5	0.1	0.10	39	374 398	220
5S/10E-28H 1 M 9-26-63 5524	65	--	565	--	--	56 2.43	--	--	--	--	20 0.56	--	--	0.00	--	168	
5S/10E-30F 1 M 9-20-63 5524	66	--	743	--	--	110 4.78	--	--	--	--	42 1.18	--	--	0.10	--	136	

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number		Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million						
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
SAN JOAQUIN VALLEY TURLOCK IRRIGATION DIST				52200	52208 (CONTINUED)											
5S/11E- 7P 1 M 9-16-63 5524	65	--	532	--	--	30 1.30	--	--	--	--	14 0.39	--	--	0.20	--	205
5S/11E-29F 1 M 9-16-63 5524	66	--	283	--	--	21 0.91	--	--	--	--	10 0.28	--	--	0.10	--	96
6S/10E- 2H 1 M 9-16-63 5524	65	--	561	--	--	41 1.78	--	--	--	--	23 0.65	--	--	0.10	--	207
6S/10E- 9B 1 M 9-16-63 5524	65	--	682	--	--	71 3.09	--	--	--	--	46 1.30	--	--	0.20	--	172
6S/10E-24L 1 M 9-16-63 5524	65	--	433	--	--	51 2.22	--	--	--	--	22 0.62	--	--	0.20	--	96
6S/10E-28K 1 M 9-16-63 5524	64	--	685	--	--	106 4.61	--	--	--	--	60 1.69	--	--	0.10	--	116
6S/11E- 3B 1 M 9-29-63 5524	65	--	652	--	--	60 2.61	--	--	--	--	28 0.79	--	--	0.00	--	190
6S/11E- 9C 1 M 9-13-63 5524	66	--	520	--	--	41 1.78	--	--	--	--	19 0.54	--	--	0.00	--	169
6S/12E- 6L 1 M 9-17-63 5524	67	--	483	--	--	36 1.57	--	--	--	--	21 0.59	--	--	0.10	--	147

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boran B	Sili- ca SiO ₂	TDS Computed Evap. 180°C CaCO ₃
SAN JOAQUIN VALLEY MERCED IRRIGATION DIST				52200	52209											
6S/11E-27K 1 M 7- 1-63 5525	68	--	228	--	--	21 0.91	--	--	--	--	5 0.14	--	--	0.00	--	62
6S/11E-36P 1 M 7- 9-63 5525	67	--	308	--	--	26 1.13	--	--	--	--	7 0.20	--	--	0.00	--	91
6S/12E-21N 1 M 7- 9-63 5525	68	--	228	--	--	20 0.87	--	--	--	--	4 0.11	--	--	0.00	--	66
7S/11E-4M 1 M 7- 2-63 5525	67	--	518	--	--	67 2.91	--	--	--	--	21 0.59	--	--	0.10	--	105
7S/12E-10 1 M 9-10-63 5525	68	--	361	--	--	26 1.13	--	--	--	--	14 0.39	--	--	0.00	--	119
7S/12E-19A 1 M 6-20-63 5525	66	--	326	--	--	22 0.96	--	--	--	--	5 0.14	--	--	0.00	--	116
7S/13E-4P 1 M 7- 9-63 5525	68	--	330	--	--	24 1.04	--	--	--	--	9 0.25	--	--	0.00	--	110
7S/13E-22C 1 M 7-23-63 5525	66	--	416	--	--	21 0.91	--	--	--	--	72 2.03	--	--	0.00	--	171
7S/14E-9R 1 M 9-10-63 5525	69	--	267	--	--	21 0.91	--	--	--	--	9 0.25	--	--	0.00	--	91

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY MERCED IRRIGATION DIST				52200	52209	(CONTINUED)										
7S/14E-31M 1 M 8- 8-63 5525	68	--	670	--	--	46 2.00	--	--	--	--	18 0.51	--	--	0.00	--	264
7S/15E-18K 1 M 8- 7-63 5525	70	--	278	--	--	18 0.78	--	--	--	--	8 0.23	--	--	0.00	--	101
7S/15E-30E 1 M 8- 7-63 5525	66	--	676	--	--	57 2.48	--	--	--	--	13 0.37	--	--	0.00	--	223
8S/14E- 2D 1 M 8-21-63 5525	69	--	325	--	--	31 1.35	--	--	--	--	8 0.23	--	--	0.00	--	96
DELTA-MENDOTA AREA				52211												
3S/ 7E-33C 1 M 7-12-63 5122	72	--	1060	--	--	142 6.17	--	--	--	--	215 6.06	--	--	0.20	--	170
4S/ 7E-17K 1 M 6-27-63 5050	63	--	1570	--	--	154 6.70	--	--	--	--	288 8.12	--	--	2.00	--	412
4S/ 7E-18A 1 M 6-27-63 5050	62	--	1750	--	--	178 7.74	--	--	--	--	289 8.15	--	--	2.30	--	478
4S/ 7E-26R 1 M 7-17-63 5050	67	8.3	1190	30 1.50 10	111 9.13 61	99 4.30 29	2 0.05	3 0.10 1	284 4.65 31	230 4.79 31	190 5.36 35	20.0 0.32 2	0.2	0.60	21	846 876
4S/ 7E-34K 1 M 7-17-63 5050	68	8.3	1350	20 1.00 7	95 7.81 57	110 4.78 35	2 0.05	0	270 4.43 32	126 2.62 19	224 6.32 46	23.0 0.37 3	0.2	0.60	27	761 821

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number		Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
Date sampled	Agv. sampled Coll.				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	Total hardness Evap 180°C CaCO ₃	
SAN JOAQUIN VALLEY DELTA-MENDOTA AREA					52200	52211 (CONTINUED)												
5S/ 7E- 1M 1 M 7-17-63 5050		65	8.4	1220	52	100	85	2	12	306	152	202	14.0	0.2	0.60	20	790	541
					2.59	8.22	3.70	0.05	0.40	5.02	3.16	5.70	0.23				616	
					18	56	25		3	35	22	59	2					
5S/ 7E- 9H 1 M 7-17-63 5050		73	8.2	1590	49	70	180	2	0	195	235	271	3.9	0.2	0.60	17	925	411
					2.45	5.76	7.83	0.05		3.20	4.89	7.64	0.06				974	
					15	36	49			20	31	48						
5S/ 7E-23B 1 M 7-17-63 5050		74	8.2	1340	69	66	130	3	0	195	272	190	11.0	0.1	0.30	23	860	444
					3.44	5.43	5.65	0.08	3.20	5.66	5.56	5.36	0.18				870	
					24	37	39	1		22	39	37	1					
5S/ 7E-35A 1 M 6-27-63 5050		64	8.4	940	28	50	97	1	6	211	98	128	11.0	0.4	0.40	23	547	276
					1.40	4.11	4.22	0.03	0.20	3.46	2.04	3.61	0.18				544	
					14	42	43		2	36	21	38	2					
5S/ 8E- 8G 1 M 8- 5-63 5122		70	--	1750	--	--	154	--	--	--	--	181	--	--	0.80	--	602	
							6.70					5.10						
5S/ 8E-27M 1 M 8- 5-63 5122		73	--	1370	--	--	129	--	--	--	--	42	--	--	0.50	--	450	
							5.61					1.18						
8S/ 9E- 2P M 6-27-63 5050		65	8.1	993	74	32	85	2	0	167	247	77	12.0	0.1	0.48	27	639	316
					3.69	2.63	3.70	0.05		2.74	5.14	2.17	0.19				684	
					37	26	37			27	50	21	2					
8S/ 9E-12E 1 M 7-23-63 5641		--	8.2	2275	82	39	385	8	0	162	559	347	0.0	0.2	2.20	27	1529	365
					4.09	3.21	16.74	0.20		2.66	11.64	9.79					1550	
					17	13	69	1		11	48	41						
8S/10E-29D 1 M 6-27-63 5050		67	8.2	2280	65	27	390	3	0	171	548	273	2.3	0.3	3.00	39	1431	273
					3.24	2.22	16.96	0.08		2.80	11.41	7.70	0.04				1500	
					14	10	75			13	52	35						

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					ports per million equivalents per million reactivity value			Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap. 180°C	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY DELTA-MENDOTA AREA				52200	52211 (CONTINUED)													
8S/10E-29D 1 M 7-17-63 5050	76	8.2	1675	68 3.39 16	19 1.56 7	370 16.09 76	3 0.08	0	187 3.06 15	524 10.91 52	245 6.91 33		1.3 0.02	0.2	2.20	26 1353 1340		248
9S/ 9E-2L 1 M 7-23-63 5641	--	8.3	2050	68 3.39 15	71 5.84 25	315 13.70 60	2 0.05	5 0.17 1	205 3.36 15	408 8.49 38	374 10.55 47		0.0	0.2	1.80	19 1365 1400		462
9S/ 9E-21F 1 M 7-23-63 5641	--	--	927	--	--	97 4.22	--	--	--	--	112 3.16		--	--	1.30	--		251
9S/10E-36R 1 M 7-22-63 5641	--	--	1080	--	--	80 3.48	--	--	--	--	116 3.27		--	--	0.60	--		379
9S/11E-7N 1 M 6-27-63 5050	65	8.2	1730	27 1.35 8	4 0.33 2	332 14.44 89	2 0.05	0	209 3.43 21	460 9.58 58	129 3.64 22		0.8 0.01	0.3	2.80	22 1083 1090		84
10S/ 9E-2D 1 M 6-27-63 5050	64	8.2	970	30 1.50 14	19 1.56 15	170 7.39 70	2 0.05	0	207 3.39 32	70 1.46 14	197 5.56 53		2.7 0.04	0.2	1.40	16 610 564		153
CHOWCHILLA WATER DISTRICT				52212														
9S/16E-30C 1 M 8-7-63 5050	74	--	207	--	--	17 0.74	--	--	--	--	18 0.51		--	--	0.00	--		61
9S/16E-35N 1 M 8-7-63 5050	72	8.1	285	28 1.40 45	6 0.49 16	27 1.17 38	2 0.05	0	127 2.08 71	4 0.08 3	25 0.71 24		4.4 0.07 2	0.1	0.00	39 198 192		95
10S/14E-8R 1 M 8-15-63 5050	67	--	533	--	--	38 1.65	--	--	--	--	35 0.99		--	--	0.10	--		176

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				ports per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Computed I.D.S. Evap. 180°C	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY CHOWCHILLA WATER DISTRICT				52200	52212	(CONTINUED)												
10S/15E-31A 1 M 8-15-63 5050	68	--	772	--	--	43 1.87	--	--	--	--	--	120 3.38	--	--	0.10	--	--	268
10S/16E-30K 1 M 8-28-63 5050	70	8.2	320	31 1.55 45	8 0.66 19	28 1.22 35	2 0.05 1	0	153 2.51 74	4 0.08 2	22 0.62 18	9.7 0.16 5	0.2	0.10	34	214 216	111	
MADERA IRRIGATION DIST				52213	52213													
11S/16E-22K 1 M 8-26-63 5050	69	--	460	--	--	30 1.30	--	--	--	--	--	32 0.90	--	--	0.00	--	--	158
11S/17E-25R 1 M 8-7-63 5050	72	--	205	--	--	20 0.87	--	--	--	--	--	18 0.51	--	--	0.00	--	--	53
11S/18E-20E 1 M 8-7-63 5050	75	7.8	180	15 0.75 39	2 0.16 8	21 0.91 47	4 0.10 5	0	79 1.29 69	3 0.06 3	17 0.48 26	2.6 0.04 2	0.2	0.00	54	158 160	46	
12S/17E-7F 1 M 8-26-63 5050	69	--	401	--	--	28 1.22	--	--	--	--	--	25 0.71	--	0.10	--	--	127	
12S/17E-24A 1 M 8-7-63 5050	69	8.1	250	24 1.20 46	6 0.49 19	19 0.83 32	4 0.10 4	0	116 1.90 74	4 0.08 3	16 0.45 18	7.8 0.13 5	0.2	0.10	52	190 196	85	
12S/18E-7L 1 M 8-7-63 5050	68	--	202	--	--	16 0.70	--	--	--	--	--	10 0.28	--	0.00	--	--	61	
-- 7L 1 M 8-28-63 5050	68	--	204	--	--	15 0.65	--	--	--	--	--	10 0.28	--	0.00	--	--	61	

* I.D.S. by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Computed hardness Exp 180°C CaCO ₃	Total hardness CaCO ₃
SAN JOAQUIN VALLEY MADERA IRRIGATION DIST				52200	52213 (CONTINUED)												
12S/18E-14J 1 M 8-7-63 5050	73	--	273	--	--	22 0.96	--	--	--	--	26 0.73	--	--	0.00	--	77	
8-28-63 5050	72	--	274	--	--	22 0.96	--	--	--	--	26 0.73	--	--	0.00	--	76	
13S/17E-11L 1 M 9-3-63 5000	71	7.4	237	17 0.85 37	5 0.41 18	22 0.96 42	2 0.05 2	0	92 1.51 47	44 0.92 29	23 0.65 20	8.1 0.13 4	0.3	0.00	77	244 204	63
13S/17E-5P 1 M 8-15-63 5050	75	--	718	--	--	67 2.91	--	--	--	--	50 1.41	--	--	0.20	--	226	
WEST CHOWCHILLA-MADERA				52214	52214												
10S/13E-1A 1 M 7-23-63 5641	--	8.0	490	60 2.99 54	9 0.74 13	39 1.70 31	5 0.13 2	0	223 3.65 67	14 0.29 5	38 1.07 20	27.0 0.44 8	0.1	0.00	49	351 366	187
11S/14E-5B 1 M 8-15-63 5050	68	8.0	610	69 3.44 56	12 0.99 16	36 1.57 26	4 0.10 2	0	110 1.80 29	17 0.35 6	142 4.00 65	3.2 0.05 1	0.1	0.10	57	394 412	222
11S/14E-16A 1 M 9-11-63 5050	70	8.2	655	54 2.69 43	21 1.73 28	40 1.74 28	4 0.10 2	0	137 2.25 37	6 0.12 2	126 3.55 58	11.0 0.18 3	0.1	0.00	55	384 402	221
11S/15E-23L 1 M 8-26-63 5050	69	--	422	--	--	31 1.35	--	--	--	--	22 0.62	--	--	0.00	--	144	
11S/15E-29H 1 M 8-15-63 5050	68	--	460	--	--	35 1.52	--	--	--	--	40 1.13	--	--	0.10	--	148	

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				Total hardness as CaCO ₃
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicor- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	IDS Computed Evap.180°C		
SAN JOAQUIN VALLEY WEST CHOWCHILLA-MADERA				52200	52214	CONTINUED)												
12S/14E-10N 1 M 8-19-63 5050	67	--	2950	--	--	308 13.39	--	--	--	--	756 21.32	--	--	0.10	--	--	742	
12S/15E-4K 1 M 8-15-63 5050	68	--	585	--	--	37 1.61	--	--	--	--	80 2.26	--	--	0.00	--	--	194	
12S/15E-22F 1 M 8-15-63 5050	69	--	353	--	--	32 1.39	--	--	--	--	25 0.71	--	--	0.00	--	--	96	
12S/15E-27G 1 M 8-15-63 5050	71	--	381	--	--	55 2.39	--	--	--	--	32 0.90	--	--	0.00	--	--	101	
13S/15E-22J 1 M 7-22-63 5641	--	--	208	--	--	46 2.00	--	--	--	--	12 0.34	--	--	0.20	--	--	3	
13S/15E-25C 1 M 7-22-63 5050	--	--	201	--	--	44 1.91	--	--	--	--	16 0.45	--	--	0.10	--	--	2	
8-19-63 5050 -25C 1 M	64	--	192	--	--	40 1.74	--	--	--	--	1 0.02	15 0.42	--	0.20	--	--		
13S/16E-2C 2 M 8-15-63 5050	71	--	395	--	--	31 1.35	--	--	--	--	19 0.54	--	--	0.00	--	--	130	

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Computed Exp. Hardness Equiv. CaCO ₃	Total hardness CaCO ₃
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215												
12S/20E-32J 1 M 5-2-63 5050	--	7.9	228	21 1.05 43	8 0.66 27	15 0.65 27	3 0.08 3	0	134 2.20 86	3 0.06 2	7 0.20 8	6.9 0.11 4	0.3	0.25	61	191 208	86
12S/21E-31P 1 M 7-11-63 5631	--	--	344	--	--	13 0.57	--	--	--	--	5 0.14	--	--	0.00	--	--	146
13S/17E-12J 1 M 9-26-63 5050	--	8.3	600	51 2.54 39	20 1.64 25	53 2.30 35	3 0.08 1	0	304 4.98 77	43 0.90 14	16 0.45 7	9.5 0.15 2	--	0.20	--	345 385	209
13S/17E-22R 1 M 6-25-63 5631	--	7.6	747	59 2.94 38	18 1.48 19	76 3.30 42	2 0.05	0	372 6.10 77	42 0.87 11	21 0.59 7	25.0 0.40 5	0.1	0.16	59	485 467	221
13S/17E-29L 1 M 6-20-63 5631	--	8.0	576	28 1.40 26	10 0.82 15	70 3.04 56	5 0.13 2	0	209 3.43 62	35 0.73 13	49 1.38 25	0.4 0.01	0.2	0.12	60	360 370	111
13S/19E-24Q 1 M 6-12-63 5050	78	7.2	990	60 2.99 33	26 2.14 23	88 3.83 42	8 0.20	0	116 1.90 21	10 0.21 2	225 6.35 69	43.0 0.69 8	0.3	0.25	82	600 693	257
13S/19E-27L 1 M 8-12-63 5000	--	7.4	385	34 1.70 42	15 1.23 31	22 0.96 24	5 0.13 3	0	201 3.29 82	11 0.23 6	10 0.28 7	12.0 0.19 5	0.2	0.00	70	278	147
13S/19E-29E 1 M 7-17-63 5050	--	7.7	311	30 1.50 49	8 0.66 21	18 0.78 25	5 0.13 4	0	141 2.31 77	6 0.12 4	13 0.37 12	13.0 0.21 7	0.2	0.06	102	265 237	108
13S/19E-32D 1 M 6-13-63 5050	--	7.4	356	26 1.30 37	14 1.15 33	21 0.91 26	5 0.13 4	0	157 2.57 74	9 0.19 6	15 0.42 12	17.0 0.27 8	0.2	0.07	73	257 262	123

ANALYSES OF GROUND WATER

1963

State well number		Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Computed Evap. 100°C CaCO ₃
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST					52200	52215	(CONTINUED)										
13S/19E-32M 1 M 8-12-63 5000	--	7.5	832	50	21	105	6	0	373	27	50	31.0	0.3	0.20	62	536	212
				2.50	1.73	4.57	0.15	6.11	0.56	1.41	0.50						
				28	19	51	2		71	7	16	6					
13S/19E-36E 1 M 5-28-63 5050	72	8.0	281	16	8	14	5	0	108	3	4	10.0	0.2	0.05	73	186	73
				0.80	0.66	0.61	0.13	1.77	0.06	0.11	0.16						
				36	30	28	6		84	3	5	8					
13S/20E- 6F 1 M 6-11-63 5050	71	8.0	212	21	5	15	3	0	104	3	7	7.1	0.4	0.28	56	169	73
				1.05	0.41	0.65	0.08	1.70	0.06	0.20	0.11						
				48	19	30	4		82	3	10	5					
6-11-63 5050	71	--	--	--	--	--	--	--	--	--	--	11.0	--	--	--	--	--
13S/20E- 9F 2 M 3-23-63 5060	--	8.0	--	16	10	12	3	0	102	4	7	11.1	0.1	--	--	113	81
				0.80	0.82	0.52	0.08	1.67	0.08	0.20	0.18						
				36	37	23	4		78	4	9	8					
5-28-63 5050	71	--	--	--	--	--	--	--	--	--	--	12.0	--	--	--	--	--
13S/20E- 90 1 M 5-28-63 5050	71	8.1	206	19	10	13	3	0	118	4	5	9.6	0.2	0.06	69	191	89
				0.95	0.82	0.57	0.08	1.93	0.08	0.14	0.15						
				39	34	24	3		84	3	6	7					
8- 2-63 5050	--	--	--	--	--	--	--	--	--	--	--	12.0	--	--	--	--	--
13S/20E-12L 1 M 6-14-63 5050	--	7.8	155	14	5	9	2	0	80	5	4	0.8	0.2	0.02	23	102	56
				0.70	0.41	0.39	0.05	1.31	0.10	0.11	0.01						
				45	26	25	3		86	7	7	1					

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million					Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness CaCO ₃			
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215	(CONTINUED)														
13S/20E-17G 1 M 9-3-63 5060	--	7.7	--	19 0.95 39	10 0.82 34	13 0.57 23	4 0.10 4	0	120 1.97 85	5 0.10 4	5 0.14 6	7.1 0.11 5	0.1	--	--	122 89				
13S/20E-17G 2 M 9-3-63 5060	--	8.2	--	33 1.65 46	13 1.07 30	17 0.74 21	5 0.13 4	--	172 2.82 81	8 0.17 5	8 0.23 7	15.9 0.26 7	0.1	--	--	185 248 136				
13S/20E-20N 1 M 6-26-63 5050	70	7.7	194	16 0.80 41	7 0.58 30	11 0.48 24	4 0.10 5	0	93 1.52 81	3 0.06 3	5 0.14 7	10.0 0.16 9	0.1	0.06	68	170 168 69				
13S/20E-27J 1 M 6-26-63 5050	--	7.8	233	18 0.90 38	9 0.74 31	15 0.65 27	4 0.10 4	0	108 1.77 77	7 0.15 7	5 0.14 6	14.0 0.23 10	0.1	0.16	65	190 182 82				
13S/20E-32D 1 M 6-26-63 5050	70	7.7	239	16 0.80 35	9 0.74 32	14 0.61 27	6 0.15 7	0	86 1.41 72	4 0.08 4	7 0.20 10	16.0 0.26 13	0.2	0.04	74	188 198 77				
13S/21E-15N 2 M 5-16-63 5050	--	7.9	152	8 0.40 27	6 0.49 34	12 0.52 36	2 0.05 3	0	76 1.25 86	4 0.08 6	2 0.06 4	3.7 0.06 4	0.2	0.04	45	120 114 45				
13S/21E-17F 1 M 5-16-63 5050	71	7.9	254	17 0.85 35	10 0.82 33	16 0.70 29	3 0.08 3	0	106 1.74 73	12 0.25 11	7 0.20 8	11.0 0.18 8	0.2	0.03	62	190 177 84				
-17F 1 M 5-16-63 5050	--	--	--	--	--	--	--	--	--	--	--	17.0 0.27	--	--	--	--				
13S/21E-19A 1 M 5-29-63 5050	--	7.5	230	14 0.70 31	10 0.82 36	14 0.61 27	5 0.13 6	0	111 1.82 82	11 0.23 10	3 0.08 4	5.2 0.08 4	0.2	0.04	68	185 174 76				

TABLE E-1

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total hardness Evap 180°C CaCO ₃		
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215 (CONTINUED)													
135/21E-19A 1 M 5-29-63 5050	--	--	--	--	--	--	--	--	--	--	--	7.0 0.11	--	--	--			
135/21E-31E 2 M 5- 2-63 5050	73	--	--	--	--	--	--	--	--	--	--	21.0 0.34	--	--	--			
10-29-63 5050	--	7.4	393	28 1.40 36	17 1.40 36	24 1.04 26	4 0.10 26	0	178 2.92 75	13 0.27 7	13 0.37 10	20.0 0.32 8	0.1	0.09	57	264 272		
135/21E-31M 1 M 6-12-63 5050	--	8.2	572	47 2.35 39	26 2.14 35	31 1.35 22	10 0.26 4	0	245 4.02 67	38 0.79 13	19 0.54 9	39.0 0.63 11	0.3	0.15	73	404 407		
135/21E-31O 1 M 5-27-63 5050	72	--	--	--	--	--	--	--	--	--	--	16.0 0.26	--	--	--			
6-24-63 5060	--	8.1	--	49 2.45 40	27 2.22 37	28 1.22 20	7 0.18 20	0	283 4.64 77	27 0.56 9	18 0.51 8	22.0 0.35 6	--	--	--	317 234		
135/21E-36R 1 M 8-20-63 5050	68	7.8	173	9 0.45 29	6 0.49 32	13 0.57 37	1 0.03 2	0	73 1.20 84	6 0.12 8	3 0.08 6	1.9 0.03 2	0.1	0.00	44	120 47		
135/22E-28C 2 M 7-11-63 5631	--	8.1	467	23 1.15 24	32 2.63 56	20 0.87 18	3 0.08 2	0	210 3.44 74	12 0.25 5	20 0.56 12	25.0 0.40 9	0.2	0.10	48	287 288		
135/23E-30J 1 M 7-19-63 5631	--	7.8	232	14 0.70 30	6 0.49 21	25 1.09 46	3 0.08 3	0	112 1.84 80	6 0.12 5	6 0.17 7	9.7 0.16 7	0.3	0.08	62	187 184		

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactance value						Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- ca SiO ₂	I.D.S. Computed Evap 100% CaCO ₃	Total hardness CaCO ₃			
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215 (CONTINUED)															
14S/17E-13H 1 M 6-25-63 5631	--	8.0	444	38 1.90 47	14 1.15 28	20 0.87 21	5 0.13 3	0	143 2.34 57	16 0.33 8	42 1.18 29	15.0 0.24 6	0.2	0.08	69	290 311	153			
14S/18E-11F 1 M 8-28-63 5000	69	8.0	560	30 1.50 27	24 1.97 36	43 1.87 34	6 0.15 3	0	212 3.47 64	24 0.50 9	38 1.07 20	23.0 0.37 7	0.2	0.15	75	368 371	174			
14S/18E-16Q 1 M 8-12-63 5000	71	7.3	471	42 2.10 44	20 1.64 34	20 0.87 18	7 0.18 4	0	170 2.79 60	16 0.33 7	45 1.27 27	16.0 0.26 6	0.3	0.10	75	325	187			
14S/18E-24D 1 M 8-12-63 5000	71	7.7	339	29 1.45 42	13 1.07 31	18 0.78 22	7 0.18 5	0	154 2.52 74	6 0.12 4	17 0.48 14	17.0 0.27 8	0.2	0.00	76	259	126			
14S/18E-25A 1 M 6-12-63 5050	68	8.0	450	38 1.90 41	16 1.32 29	29 1.26 27	6 0.15 3	0	193 3.16 70	11 0.23 5	33 0.93 21	13.0 0.21 5	0.3	0.20	64	305 293	161			
14S/18E-26N 1 M 8-13-63 5050	--	--	559	--	--	41 1.78	--	--	--	--	60 1.69	--	--	0.10	--	--	175			
14S/18E-29J 1 M 8-12-63 5000	70	7.5	500	39 1.95 37	18 1.48 28	37 1.61 31	7 0.18 3	0	240 3.93 76	14 0.29 6	24 0.68 13	15.0 0.24 5	0.2	0.00	63	335	172			
14S/19E-7M 1 M 6-13-63 5050	--	8.0	503	44 2.20 41	21 1.73 32	30 1.30 24	7 0.18 3	0	276 4.52 86	9 0.19 4	13 0.37 7	12.0 0.19 4	0.1	0.04	74	346 318	197			
14S/19E-14P 1 M 6-13-63 5050	--	7.4	261	12 0.60 24	7 0.58 23	28 1.22 49	3 0.08 3	0	104 1.70 71	9 0.19 8	8 0.23 10	16.0 0.26 11	0.1	0.08	47	181 179	59			

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness as CaCO ₃	
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215 (CONTINUED)													
14S/19E-20H 2 M 6-26-63 5050	--	8.2	1080	94 4.69 39	28 2.30 19	112 4.87 40	9 0.23 2	0	585 9.59 80	22 0.46 4	54 1.52 13	27.0 0.44 4	0.1	0.34	58	692 670 350		
6-26-63 5050	--	--	--	--	--	--	--	--	--	--	--	32.0 0.52	--	--	--	--		
14S/19E-20K 2 M 6-12-63 5050	--	7.5	1140	108 5.39 43	53 4.36 35	55 2.39 19	13 0.33 3	0	648 10.62 84	18 0.37 3	58 1.84 13	0.7 0.01	0.1	0.11	70	695 677 488		
6-12-63	--	--	--	--	--	--	--	--	--	--	--	0.5 0.01	--	--	--	--		
14S/19E-20M 2 M 6-12-63 5050	--	7.7	331	24 1.20 37	11 0.90 28	22 0.96 30	7 0.18 6	0	134 2.20 70	6 0.17 5	19 0.54 17	15.0 0.24 8	0.1	0.07	74	246 250 105		
6-12-63 5050	--	--	--	--	--	--	--	--	--	--	--	20.0 0.32	--	--	--	--		
14S/19E-22R 1 M 6-26-63 5050	--	8.3	623	54 2.69 41	23 1.89 29	42 1.83 28	7 0.18 3	0	314 5.15 76	15 0.31 5	29 0.82 12	18.0 0.29 4	0.1	0.09	64	406 388 229		
14S/19E-28P 1 M 6-26-63 5050	68	8.0	1040	98 4.89 47	32 2.63 25	61 2.65 25	13 0.33 3	0	474 7.77 77	21 0.44 4	66 1.86 18	3.9 0.06 1	0.1	0.14	73	601 603 376		
14S/19E-29A 1 M 6-26-63 5050	65	8.2	928	74 3.69 36	41 3.37 33	68 2.96 29	11 0.28 3	0	527 8.64 84	14 0.29 3	49 1.38 13	0.8 0.01	0.1	0.27	67	584 565 353		

* IDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total Hardness CaCO ₃
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215	(CONTINUED)										
14S/19E-31A 1 M	69	7.3	851	78	41	41	10	0	368	9	94	14.0	0.2	0.09	68	536
6-12-63 5050				3.89	3.37	1.78	0.26		6.03	0.19	2.65	0.23				363
				42	36	19	3		66	2	29	3				
14S/20E-1J 1 M	--	7.5	276	20	12	17	3	0	130	6	7	18.0	0.1	0.06	40	187
10-29-63 5050				1.00	0.99	0.74	0.08		2.13	0.12	0.20	0.29				196
				36	35	26	3		78	4	7	11				100
14S/20E-7M 1 M	69	7.9	237	22	9	10	3	0	83	14	5	28.0	0.1	0.06	55	187
6-26-63 5050				1.10	0.74	0.43	0.08		1.36	0.29	0.14	0.45				182
				47	31	18	3		61	13	6	20				
14S/20E-13K 1 M	68	8.1	250	20	10	14	2	0	123	10	2	8.2	0.2	0.06	58	185
5-28-63 5050				1.00	0.82	0.61	0.05		2.02	0.21	0.06	0.13				180
				40	33	25	2		83	9	2	5				
-13K 1 M	--	--	--	--	--	--	--	--	--	--	--	9.2	--	--	--	
5-28-63 5050												0.15				
14S/20E-19A 1 M	--	7.7	672	81	18	27	7	0	283	18	48	25.0	0.2	0.08	74	437
7-17-63 5050				4.04	1.68	1.17	0.18		4.64	0.37	1.35	0.40				437
				59	22	17	3		69	5	20	6				
14S/20E-27C 1 M	--	8.3	749	67	34	55	6	0	454	10	25	4.5	0.2	0.15	59	484
6-13-63 5050				3.34	2.80	2.39	0.15		7.44	0.21	0.71	0.07				482
				38	32	28	2		88	2	8	1				307
14S/20E-34R 2 M	--	8.1	511	42	21	27	4	0	212	10	40	16.0	0.2	0.05	36	300
8-22-63 5000				2.10	1.73	1.17	0.10		3.47	0.21	1.13	0.26				303
				41	34	23	2		68	4	22	5				
14S/21E-3J 1 M	67	7.5	167	12	8	10	1	0	80	4	3	11.0	0.2	0.40	41	130
8-8-63 5000				0.60	0.66	0.43	0.03		1.31	0.08	0.08	0.18				63
				35	38	25	2		79	5	5	11				

TABLE E-1

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed as Evap. 180°C CaCO ₃	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215 (CONTINUED)													
14S/21E-4N 1 M 5-27-63 5050	68	--	--	--	--	--	--	--	--	--	--	5.0 0.08	--	--	--	--		
6-24-63 5060	--	8.1	--	22 1.10 38	13 1.07 37	15 0.65 23	2 0.05 2	0	153 2.51 85	6 0.12 4	8 0.23 8	5.5 0.09 3	0.1	--	--	147 109		
14S/21E-6B 3 M 6-12-63 5050	75	8.1	261	21 1.05 37	12 0.99 34	18 0.78 27	2 0.05 2	0	142 2.33 83	9 0.19 7	6 0.17 6	7.4 0.12 4	0.3	0.18	53	199 186 102		
14S/21E-6E 1 M 5-16-63 5050	73	--	--	--	--	--	--	--	--	--	--	26.0 0.42	--	--	--	--		
10-29-63 5050	--	7.5	359	26 1.30 35	16 1.32 36	22 0.96 26	4 0.10 3	0	169 2.77 78	9 0.19 5	11 0.31 9	16.0 0.26 7	0.1	0.06	63	250 261 131		
14S/21E-7M 1 M 5-1-63 5050	72	--	--	--	--	--	--	--	--	--	--	18.0 0.29	--	--	--	--		
14S/21E-9R 1 M 5-28-63 5050	71	8.5	452	39 1.95 40	21 1.73 36	25 1.09 23	2 0.05 1	0	219 3.59 77	15 0.51 7	15 0.42 9	21.0 0.34 7	0.1	0.05	47	293 276 184		
5-28-63 5050	--	--	--	--	--	--	--	--	--	--	--	20.0 0.32	--	--	--	--		
14S/21E-12P 1 M 6-27-63 5050	--	8.2	760	94 4.69 56	25 2.06 24	36 1.57 19	4 0.10 1	0	351 5.75 68	80 1.67 20	28 0.79 9	18.0 0.29 3	0.0	0.07	51	509 494 338		

* IDS by Evap at 105°C

TABLE E - 1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Computed Exp. ID.S. 180°C	Total hardness CaCO ₃
SAN JOAQUIN VALLEY FRESNO IRRIGATION DIST				52200	52215	(CONTINUED)											
14S/21E-30N 1 M 6-13-63 5050	--	7.9	381	31 1.55 40	16 1.32 34	21 0.91 24	3 0.08 2	0	162 2.66 70	7 0.15 4	24 0.68 18	19.0 0.31 8	0.3	0.24	40	241 250	144
6-13-63 5050	--	--	--	--	--	--	--	--	--	--	--	20.0 0.32	--	--	--	--	--
15S/19E-15C 1 M 8-14-63 5000	68	7.6	758	78 3.89 48	21 1.73 21	50 2.17 27	13 0.33 4	0	331 5.43 68	32 0.67 8	56 1.58 20	16.0 0.26 3	0.1	0.00	70	499	281
15S/20E-6L 1 M 8-14-63 5000	67	7.8	584	49 2.45 39	24 1.97 31	42 1.83 29	3 0.08 1	0	288 4.72 75	17 0.35 6	27 0.76 12	29.0 0.47 7	0.3	0.20	50	383	221
CITY OF FRESNO				52216													
13S/20E-34M 1 M 5-1-63 5050	71	7.7	281	19 0.95 37	9 0.74 28	18 0.78 30	5 0.13 5	0	122 2.00 80	6 0.12 5	7 0.20 8	12.0 0.19 8	0.2	0.05	68	204 192	85
14S/20E-1J 1 M 5-1-63 5050	70	--	--	--	--	--	--	--	--	--	--	21.0 0.34	--	--	--	--	--
14S/20E-2J 1 M 5-15-63 5050	--	7.6	430	34 1.70 39	17 1.40 32	26 1.13 26	6 0.15 3	0	205 3.36 79	11 0.23 5	14 0.39 9	18.0 0.29 7	0.2	0.08	67	294 286	155
14S/20E-3M 1 M 6-13-63 5050	74	7.9	395	32 1.60 41	14 1.15 29	24 1.04 26	6 0.15 4	0	173 2.84 73	8 0.17 4	17 0.48 12	24.0 0.39 10	0.2	0.13	77	287 260	138
14S/20E-8A 1 M 7-16-63 5050	70	7.5	531	55 2.74 51	15 1.23 23	27 1.17 22	8 0.20 4	0	215 3.52 67	17 0.35 7	26 0.73 14	41.0 0.66 13	0.2	0.07	74	369 374	199

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness CaCO ₃
SAN JOAQUIN VALLEY CITY OF FRESNO				52200	52216	(CONTINUED)											
14S/20E-10M 2 M	74	7.5	354	26	14	23	5	0	162	7	13	15.0	0.2	0.05	71	254	123
5-15-63 5050				1.30	1.15	1.00	0.13		2.66	0.15	0.37	0.24					
				36	32	28	4		78		11	7					
14S/20E-11F 1 M	72	7.6	418	32	18	24	6	0	199	11	13	19.0	0.2	0.06	66	287	154
5-14-63 5050				1.60	1.48	1.04	0.15		3.26	0.23	0.37	0.31				264	
				37	35	24	4		78		9	7					
14S/20E-15M 1 M	73	8.1	367	29	15	19	6	0	169	8	16	11.0	0.1	0.05	73	260	134
5-16-63 5050				1.45	1.23	0.83	0.15		2.77	0.17	0.45	0.18				273	
				40	34	23	4		78	5	13	5					
5-15M 1 M	--	--	--	--	--	--	--	--	--	--	--	17.0	--	--	--	--	--
5-16-63 5050												0.27					
FRESNO SLOUGH AREA				52217													
13S/15E-34K 1 M	--	9.0	--	3	2	44	--	15	64	9	18	--	--	--	13	152	16
4-4-63 5702				0.15	0.16	1.91		0.50	1.05	0.19	0.51						
13S/16E-36R 1 M	70	7.6	802	89	16	47	6	0	220	43	121	0.9	0.2	0.00	53	484	288
8-14-63 5000				4.44	1.32	2.04	0.15		3.61	0.90	3.41	0.01					
				56	17	26	2		46	11	43						
13S/16E-36R 3 M	69	7.6	756	79	17	46	5	0	212	49	110	0.8	0.2	0.00	50	461	267
8-14-63 5000				3.94	1.40	2.00	0.13		3.47	1.02	3.10	0.01					
				53	19	27	2		46	13	41						
13S/17E-30A 2 M	71	8.0	571	43	7	59	5	0	177	11	79	0.0	0.2	0.04	79	370	137
8-28-63 5000				2.15	0.58	2.57	0.13		2.90	0.23	2.23					371	
				40	11	47	2		54	4	42						
14S/15E-3B 1 M	--	8.7	--	9	--	--	--	--	89	34	96	--	--	--	--	--	23
1-10-63 5702				0.45					1.46	0.71	2.71						

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent reagent value					Mineral constituents in parts per million					Total hardness CaCO ₃
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Computed Evap. 180°C			
SAN JOAQUIN VALLEY FRESNO SLOUGH				52200	52217	(CONTINUED)													
14S/15E-3B 1 M 2-27-63 5702	--	9.0	--	0.10	2	44 1.91	--	18 0.60	67 1.10	0	21 0.59	--	--	0.20	14	148	5		
14S/15E-3K 2 M 5-3-63 5702	--	8.4	--	0.15	3	158 6.87	--	9 0.30	107 1.75	12 0.25	174 4.91	--	--	0.20	29	448	16		
14S/16E-6A 1 M 8-27-63 5000	68	8.1	765	0.10	2	154 6.70 98	0.03	0	184 3.02 43	1 0.02	142 4.00 57	0.5 0.01	0.4	0.18	50	441 447	5		
14S/16E-6C 1 M 8-12-63 5001	70	8.3	690	0.15	3	134 5.83 97	0.05	0	166 2.72 41	6 0.12 2	132 3.72 57	0.0	--	--	--	359	8		
14S/16E-7G 1 M 9-26-63 5000	--	7.5	1280	0.40	8	256 11.13 95	0.05	0	136 2.23 19	42 0.87 7	310 8.74 74	0.0	--	0.20	--	687 666	28		
14S/16E-10J 1 M 8-12-63 5000	--	8.4	973	0.95	19	195 8.48 88	0.08	7 0.23 2	214 3.51 37	57 1.19 13	156 4.40 47	4.9 0.08 1	0.3	0.10	47	596	52		
14S/16E-23M 1 M 8-12-63 5000	70	7.6	1100	2.25	45	178 7.74 73	0.13	0	228 3.74 36	34 0.71 7	211 5.95 57	0.6 0.01	0.2	0.40	52	644 644	137		
15S/17E-10J 3 M 8-10-63 5000	74	8.1	1334	1.45	29	230 10.00 84	0.18	0	240 3.93 31	9 0.19 2	297 8.38 67	0.0	--	--	--	694	89		
15S/17E-10R 1 M 8-12-63 5050	73	--	3410	--	--	334 14.52	--	--	--	--	1000 28.20	--	--	0.28	--	--	764		

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							ports per million equivalents percent				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap. 180°C CaCO ₃	Total hardness CaCO ₃		
SAN JOAQUIN VALLEY FRESNO SLOUGH				52200	52217	(CONTINUED)													
15S/17E-14G 1 M 8-22-63 5000	--	8.0	855	23 1.15 15	2 0.16 2	141 6.13 81	5 0.13 2	0	138 2.26 30	3 0.06 1	186 5.25 69	0.3	0.4	0.16	41	470 479	66		
15S/17E-15E 1 M 8-10-63 5000	71	7.9	1033	43 2.15 23	8 0.66 7	148 6.44 68	7 0.18 2	0	251 4.11 42	28 0.58 6	183 5.16 52	2.5 0.04	--	--	--	543	141		
15S/17E-16H 1 M 8-10-63 5000	73	7.8	1240	10 0.50 4	2 0.16 1	260 11.30 93	6 0.15 1	0	264 4.33 37	51 1.06 9	224 6.32 54	1.3 0.02	0.6	1.60	65	751	33		
15S/17E-17A 1 M 9- 9-63 5000	72	7.9	820	7 0.35 5	1 0.08 1	166 7.22 93	4 0.10 1	0	195 3.20 42	5 0.10 1	152 4.29 56	1.8 0.03	0.5	0.75	62	496 501	22		
15S/17E-17R 1 M 9- 9-63 5000	71	8.3	1210	18 0.90 8	3 0.25 2	235 10.22 89	4 0.10 1	0	279 4.57 41	28 0.58 5	215 6.06 54	1.3 0.02	0.5	1.50	55	698 711	58		
15S/17E-21K 1 M 8-10-63 5000	71	8.1	931	14 0.70 8	2 0.16 2	172 7.48 88	6 0.15 2	0	199 3.26 36	73 1.52 17	153 4.31 47	0.6 0.01	--	--	--	518	43		
15S/17E-34A 1 M 8-12-63 5050	75	--	481	--	--	96 4.17	--	--	--	--	53 1.49	--	--	0.46	--		15		
15S/18E-16G 1 M 6-11-63 5631	--	--	377	--	--	27 1.17	--	--	--	8 0.17	27 0.76	--	--	0.07	--		113		
15S/18E-36A 1 M 8-14-63 5000	71	8.0	340	25 1.25 35	7 0.58 16	36 1.57 44	7 0.18 5	0	153 2.51 73	11 0.23 7	18 0.51 15	13.0 0.21 6	0.2	0.00	59	251	92		

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap 180% CaCO ₃	Total hardness mg/l CaCO ₃	
SAN JOAQUIN VALLEY FRESNO SLOUGH				52200	52217	(CONTINUED)												
155/19E-22M 1 M 8-29-63 5000	--	8.0	547	54 2.69 50	12 0.99 18	36 1.57 29	7 0.18 3	0	198 3.25 61	26 0.54 10	51 1.44 27	5.7 0.09 2	0.2	0.07	47	336 342	184	
155/19E-28E 1 M 8-14-63 5000	74	7.6	286	19 0.95 32	4 0.33 11	34 1.48 50	7 0.18 6	0	120 1.97 69	9 0.19 7	17 0.48 17	13.0 0.21 7	0.3	0.00	66	228	64	
155/19E-35L 1 M 8-12-63 5050	76	7.5	916	68 3.39 39	8 0.66 8	103 4.48 52	6 0.15 2	0	246 4.03 47	59 1.23 14	92 2.59 30	49.0 0.79 9	0.1	0.10	32	538 563	203	
165/17E-10G 1 M 8-26-63 5050	66	8.0	670	32 1.60 24	3 0.25 4	110 4.78 72	2 0.05 1	0	308 5.05 73	64 1.33 19	19 0.54 8	0.3	0.1	0.08	38	420 426	93	
165/17E-12J 1 M 8-10-63 5000	68	8.1	429	30 1.50 35	3 0.25 6	58 2.52 59	1 0.03 1	0	199 3.26 73	26 0.54 12	24 0.68 15	0.0	--	--	--	240	88	
165/18E-2C 1 M 8-14-63 5000	72	7.9	206	12 0.60 27	2 0.16 7	30 1.30 59	5 0.13 6	0	109 1.79 87	1 0.02 1	6 0.17 8	5.1 0.08 4	0.3	0.00	63	178	38	
165/18E-4N 1 M 8-27-63 5000	72	7.5	172	5 0.25 15	0 0.08 1	32 1.39 81	3 0.08 5	0	92 1.51 90	3 0.06 4	4 0.11 7	0.1	0.4	0.02	68	161 172	13	
165/18E-10A 1 M 8-12-63 5050	78	7.6	177	10 0.50 28	1 0.08 5	25 1.09 62	4 0.10 6	0	95 1.56 90	2 0.04 2	4 0.11 6	1.4 0.02 1	0.3	0.03	39	133 137	29	
165/18E-15L 1 M 8-10-63 5000	71	8.1	169	13 0.65 38	1 0.08 5	22 0.96 56	1 0.03 2	0	88 1.44 84	5 0.10 6	6 0.17 10	0.0	--	--	--	91	37	

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						ports per million equivalents per million reactivity value				Mineral constituents in parts per million					
				Calcium Ca	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Boron B	Silica SiO ₂	IDS Computed Evap. 180°C	Total hardness as CaCO ₃		
SAN JOAQUIN VALLEY FRESNO SLOUGH				52200	52217 (CONTINUED)														
16S/18E-18A 1 M 8-27-63 5000	67	8.0	334	26	1	42	1	0	153	16	15	0.3	0.1	0.02	36	213	69		
				1.30	0.08	1.83	0.03	2.51	0.33	0.42								215	
16S/18E-24A 1 M 8-10-63 5000	73	8.0	161	40	2	56	1		77	10	13								
				13	2	18	3	0	85	7	7	0.0	--	--	--	--	92	41	
16S/18E-24J 1 M 8-10-63 5000	74	7.9	164	39	10	47	5		1.39	0.15	0.20								
				0.65	0.16	0.78	0.08	80	9	11									
16S/18E-26A 2 M 8-29-63 5000	70	7.6	1150	13	2	18	2	0	79	9	9	0.0	--	--	--	92	41		
				0.65	0.16	0.78	0.05	1.29	0.19	0.25									
16S/19E-30 1 M 8-29-63 5000	73	7.9	464	40	1	62	3		75	11	14								
				77	2	154	2	0	143	130	196	0.6	0.1	0.08	31	663	200		
16S/19E-30 1 M 8-29-63 5000	73	7.9	464	3.84	0.16	6.70	0.05		2.34	2.71	5.53	0.01				679			
				36	1	62	2	22	26	52									
16S/19E-30 1 M 8-29-63 5000	73	7.9	464	47	4	35	4	0	117	24	50	24.0	0.1	0.06	31	277	134		
				2.35	0.33	1.52	0.10	1.92	0.50	1.41	0.39							287	
16S/19E-8R 1 M 8-14-63 5000	--	8.0	246	55	8	35	2		45	12	33	9							
				24	1	23	3	0	98	11	16	0.3	0.1	0.00	39	166	64		
16S/19E-8R 1 M 8-14-63 5000	--	8.0	246	1.20	0.08	1.00	0.08		1.61	0.23	0.45								
				51	3	42	3		70	10	20								
16S/19E-16C 1 M 8-14-63 5000	72	8.0	148	11	2	17	4	0	84	2	3	2.8	0.1	0.00	58	141	36		
				0.55	0.16	0.74	0.10	1.38	0.04	0.08	0.05								
17S/19E-1G 1 M 8-14-63 5000	71	7.5	303	35	10	48	6		89	3	5	3							
				22	1	36	1	0	84	17	33	1.9	0.2	0.05	41	194	59		
17S/19E-1G 1 M 8-14-63 5000	71	7.5	303	1.10	0.08	1.57	0.03		1.38	0.35	0.93	0.03				196			
				40	3	56	1		51	13	35	1							
17S/19E-5J 1 M 6-14-63 5000	69	7.7	709	41	1	103	1	0	111	68	113	1.3	0.0	0.08	22	405	107		
				2.05	0.08	4.48	0.03	1.82	1.42	3.19	0.02							400	
17S/19E-5J 1 M 6-14-63 5000	69	7.7	709	31	1	67	2		28	22	49								

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled of	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
Date sampled	Agg. Coll.			Calcium Cc	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY FRESNO SLOUGH AREA				52200	52217	(CONTINUED)										
17S/19E-6F 1 M 8-14-63 5000	67	8.0	606	35 1.75 27	0	109 4.74 73	1 0.03	0	297 4.87 76	28 0.58 9	32 0.90 14	1.0 0.02	0.2	0.00	23	375 88
17S/19E-7A 1 M 8-14-63 5000	69	8.2	495	9 0.45 9	2 0.16 3	95 4.13 86	2 0.05 1	0	206 3.38 65	7 0.15 3	60 1.69 32	0.6 0.01	--	--	--	277 31
17S/19E-7D 1 M 8-14-63 5000	69	8.4	554	12 0.60 11	2 0.16 3	105 4.57 84	3 0.08 1	7 0.23 4	228 3.74 64	5 0.10 2	62 1.75 30	0.6 0.01	--	--	--	309 38
CONSOLIDATED IRRIG DIST				52218	52218											
14S/21E-25R 1 M 9-26-63 5000	66	7.4	145	8 0.40 28	4 0.33 23	15 0.65 45	2 0.05 3	0	62 1.02 72	12 0.25 18	4 0.11 8	2.4 0.04 3	--	0.10	--	78 116 37
15S/21E-24L 1 M 8-12-63 5050	73	8.2	550	41 2.05 39	10 0.82 16	53 2.30 44	4 0.10 2	0	219 3.59 66	29 0.60 11	33 0.93 17	19.0 0.31 6	0.2	0.07	38	335 339 144
15S/22E-33G 1 M 8-21-63 5000	--	8.4	731	72 3.59 47	14 1.15 15	64 2.78 36	4 0.10 1	8 0.27 4	246 4.03 54	41 0.85 11	69 1.95 26	26.0 0.42 6	0.2	0.10	54	473 237
16S/20E-18G 1 M 8-16-63 5000	75	7.4	134	3 0.15 11	0	28 1.22 87	1 0.03 2	0	71 1.16 90	3 0.06 5	2 0.06 5	0.5 0.01 1	0.3	0.03	17	90 8
16S/23E-8P 1 M 9-13-63 5000	67	7.8	327	30 1.50 48	8 0.66 21	21 0.91 29	3 0.08 3	0	127 2.08 67	21 0.44 14	10 0.28 9	19.0 0.31 10	--	0.00	--	174 223 108
17S/22E-2H 1 M 7-10-63 5126	70	--	177	--	--	7 0.30	--	--	--	--	3 0.08	--	--	0.00	--	70

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	TDS Computed Evap 180°C CaCO ₃
SAN JOAQUIN VALLEY ALTA IRRIGATION DISTRICT				52200	52219											
15S/24E-7Q 1 M 8-13-63 5000	68	7.5	385	37 1.85 47	14 1.15 29	20 0.87 22	2 0.05	0	168 2.75 70	16 0.33 8	14 0.39 10	27.0 0.44 11	0.2	0.00	62	275 150
15S/24E-31H 2 M 8-21-63 5000	--	7.8	341	30 1.50 43	10 0.82 23	26 1.13 32	2 0.05	0	158 2.59 75	20 0.42 12	5 0.14 4	20.0 0.52 9	0.4	0.50	55	247 116
16S/23E-3F 2 M 8-9-63 5000	--	7.4	572	52 2.59 41	20 1.64 26	45 1.96 31	4 0.10	0	298 4.88 78	40 0.83 13	11 0.31 5	13.0 0.21 3	0.2	0.00	51	383 212
16S/24E-3J 1 M 6-17-63 5123	72	8.1	550	43 2.15 37	22 1.81 31	42 1.83 31	2 0.05	0	202 3.31 57	23 0.48 8	57 1.61 28	24.0 0.39 7	0.1	0.00	49	361 392 198
16S/25E-32N 2 M 5-28-63 5123	62	8.1	620	57 2.84 41	29 2.38 34	38 1.65 24	4 0.10	0	319 5.23 77	19 0.40 6	35 0.99 15	11.0 0.18 3	0.1	0.10	48	398 406 261
17S/23E-8H 1 M 5-28-63 5123	68	--	1020	--	--	116 5.04	--	--	--	--	139 3.92	--	--	0.10	--	241
17S/23E-8J 1 M 5-28-63 5123	68	--	1020	--	--	116 5.04	--	--	--	--	139 3.92	--	--	0.10	--	241
17S/24E-15A 2 M 6-24-63 5123	70	8.2	405	33 1.65 36	18 1.48 32	32 1.39 30	3 0.08 2	0	179 2.93 66	19 0.40 9	35 0.99 22	7.8 0.13 3	0.2	0.10	52	288 290 157

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million					Mineral constituents in parts per million					Total hardness as CaCO ₃
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap BOD ₅			
SAN JOAQUIN VALLEY LOWER KINGS RIVER AREA				52200	52220														
16S/21E-35P 1 M 8-9-63 5000	69	7.9	482	51 2.54 52	10 0.82 17	34 1.48 30	3 0.08 2	0	190 3.11 64	19 0.40 8	36 1.02 21	22.0 0.35 7	0.2	0.00	37	306	168		
17S/18E-12N 1 M 8-28-63 5000	66	8.1	1070	30 1.50 14	2 0.16 1	216 9.39 85	1 0.03 1	0	435 7.13 65	93 1.94 18	70 1.97 18	0.0	1.3	1.20	22	650 656	83		
17S/18E-24J 1 M 8-28-63 5000	--	8.2	1170	7 0.35 3	0	246 10.70 97	1 0.03 0	0	307 5.03 46	50 1.04 9	174 4.91 45	0.7 0.01	1.3	0.98	19	651 665	18		
17S/18E-35Q 1 M 8-26-63 5050	71	8.5	1090	35 1.75 14	11 0.90 7	225 9.78 78	1 0.03 0	13 0.43 4	304 4.98 41	235 4.89 40	68 1.92 16	0.0	0.6	1.40	17	756 744	133		
17S/19E-27A 1 M 8-19-63 5000	70	8.8	435	2 0.10 2	0	91 3.96 98	0	14 0.47 10	159 2.61 58	22 0.46 10	35 0.99 22	0.0	--	--	--	242	5		
17S/19E-34Q 1 M 8-19-63 5000	67	9.1	493	2 0.10 2	0	109 4.74 97	1 0.03 1	20 0.67 13	184 3.02 56	15 0.31 6	48 1.35 25	0.0	--	--	--	285	5		
17S/20E-2M 1 M 8-28-63 5000	--	7.5	307	18 0.90 33	0	41 1.78 66	1 0.03 1	0	71 1.16 43	20 0.42 16	37 1.04 39	4.4 0.07 3	0.2	0.06	24	181 186	45		
17S/20E-13G 1 M 8-28-63 5000	71	7.4	150	2 0.10 7	0	33 1.43 93	0	0	78 1.28 85	2 0.04 3	5 0.14 9	2.6 0.04 3	0.2	0.06	20	103 106	5		
17S/20E-22P 1 M 8-27-63 5000	66	7.8	275	4 0.20 7	0	61 2.65 92	1 0.03 1	0	149 2.44 87	13 0.27 10	4 0.11 4	0.0	0.1	0.04	18	174 179	10		

* TDS by Evap at 105°C.

ANALYSES OF GROUND WATER

1963

State well number		Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in								parts per million equivalents per percent				Mineral constituents in parts per million				
Date sampled	Agg. Coll.				Calcium Ca	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Baron B	Sili-ca SiO ₂	TDS Computed Evap. 180°C	Total hardness CaCO ₃			
SAN JOAQUIN VALLEY LOWER KINGS RIVER AREA					52200	52220	(CONTINUED)														
17S/20E-23D 1 M 8-27-63 5000		73	7.7	280	1 0.05 2	0	63 2.74 97	1 0.03 1	0	137 2.25 81	2 0.04 1	17 0.48 17	0.0	0.8	0.50	20	173 184	3			
17S/21E- 7J 1 M 8-14-63 5000		73	9.2	160	2 0.10 7	0	32 1.39 93	0	15 0.50 34	38 0.62 42	3 0.06 4	9 0.25 17	3.4 0.05 3	0.2	0.00	18	101	5			
17S/21E-17P 1 M 8-13-63 5000		--	7.7	209	32 1.60 76	2 0.16 8	8 0.35 17	0	0	79 1.29 63	34 0.71 34	1 0.03 1	1.9 0.03 1	0.2	0.00	26	144	88			
17S/21E-23J 1 M 9-23-63 5000		--	7.6	154	66 3.29	8 0.66	98 4.26	2 0.05	0	420 6.88	26 0.54	15 0.42	--	--	0.00	--		198			
18S/19E- 1B 1 M 8-14-63 5000		69	7.2	625	12 0.60 9	3 0.25 4	128 5.57 86	2 0.05 1	0	228 3.74 60	27 0.56 9	68 1.92 31	2.8 0.05 1	1.0	0.30	23	379	43			
18S/19E- 1B 3 M 8-14-63 5000		71	8.6	782	5 0.25 3	0	173 7.52 96	1 0.03	20 0.67 9	224 3.67 47	75 1.56 20	68 1.92 25	0.0	0.5	0.50	19	472	13			
18S/19E- 2F 2 M 8-23-63 5000		62	7.7	372	9 0.45 13	10 0.82 24	47 2.04 61	2 0.05 1	0	86 1.41 42	49 1.02 30	27 0.76 23	11.0 0.18 5	0.6	0.22	24	222 228	64			
18S/19E- 2F 3 M 8-23-63 5126		67	8.3	486	2 0.10 2	0	104 4.52 97	1 0.03	0	215 3.52 75	5 0.10 2	38 1.07 23	0.4 0.01	1.2	0.58	27	285 296	5			
18S/19E- 6G 1 M 7-30-63 5126		66	8.0	528	3 0.15 3	0	118 5.13 97	1 0.03 1	0	241 3.95 78	2 0.04 1	38 1.07 21	0.3	--	0.90	--	282 314	8			

* TDS by Fvop at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO ₃
Date sampled	Agg. Cal.			Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	
SAN JOAQUIN VALLEY LOWER KINGS RIVER AREA																
185/19E-26H 1 M 7-30-63 5126	68	--	470	--	--	106 4.61	--	--	--	--	26 0.73	--	--	0.70	--	10
185/20E-6A 1 M 8-19-63 5000	68	9.0	298	1 0.05	0 2	71 3.09 98	0	15 0.50 16	133 2.18 71	6 0.12 4	10 0.28 9	0.0	1.2	0.40	24	194
185/20E-6E 1 M 6-28-63 5000	67	8.2	380	1 0.05	0 1	90 3.91 99	0	0	179 2.93 77	13 0.27 7	21 0.59 16	0.0	0.8	0.30	19	233 264
185/21E-14F 1 M 7-10-63 5126	63	--	235	--	--	15 0.65	--	--	--	--	10 0.28	--	--	0.00	--	83
195/19E-25L M 8-30-63 5126	74	8.2	973	6 0.30	0 3	238 10.35 97	2 0.05	0	579 9.49 90	0	38 1.07 10	0.4 0.01	0.4	1.90	27	598 616
195/20E-33A 1 M 7-11-63 5126	75	--	548	--	--	125 5.44	--	--	--	--	30 0.85	--	--	1.00	--	9
195/21E-38 1 M 7-12-63 5126	69	--	286	--	--	61 2.65	--	--	--	--	5 0.14	--	--	0.30	--	18
205/20E-10L 1 M 7-30-63 5126	71	--	862	--	--	198 8.61	--	--	--	--	32 0.90	--	--	1.30	--	26
205/21E-12A 1 M 7-11-63 5126	72	--	1400	--	--	142 6.17	--	--	--	--	238 6.71	--	--	0.20	--	371

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Computed Evap. 180°C CaCO ₃
SAN JOAQUIN VALLEY LOWER KINGS RIVER AREA				52200	52220 (CONTINUED)											
20S/21E-16D M 7-19-63 5126	75	--	464	--	--	93 4.04	--	--	--	--	36 1.02	--	--	0.40	--	23
21S/21E- 1A 2 M 7-11-63 5126	68	--	1420	--	--	296 12.87	--	--	--	--	115 3.24	--	--	1.20	--	77
ORANGE COVE IRRIG DIST					52221											
19S/24E-10L 1 M 8-20-63 5000	69	7.6	556	50 2.50 45	20 1.64 29	31 1.35 24	3 0.08 1	0	235 3.85 69	29 0.60 11	23 0.65 12	32.0 0.52 9	0.2	0.00	58	362 207
19S/24E-23K 1 M 8-23-63 5050	72	7.9	513	27 1.35 45	8 0.66 22	21 0.91 31	2 0.05 2	0	128 2.10 71	4 0.08 3	16 0.45 15	20.0 0.32 11	0.2	0.06	59	220 228 101
KAWEAH DELTA WATER					52224											
17S/25E-34P 1 M 6-17-63 5123	79	--	440	--	--	38 1.65	--	--	--	--	35 0.99	--	--	0.00	--	136
18S/24E-19M 1 M 5-28-63 5123	70	--	227	--	--	34 1.48	--	--	--	--	7 0.20	--	--	0.00	--	47
19S/23E- 8H 1 M 7-26-63 5126	70	--	160	--	--	28 1.22	--	--	--	--	6 0.17	--	--	0.00	--	19
20S/22E- 1A 1 M 7-11-63 5126	70	7.7	218	13 0.65 31	0	34 1.48 69	0	0	104 1.70 80	7 0.15 7	8 0.23 11	2.9 0.05 2	--	0.00	--	116 250 33

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	
SAN JOAQUIN VALLEY KANEAH DELTA WATER				52200	52224	(CONTINUED)											
20S/26E-3F 1 M 8-28-63 5050	72	8.0	2040	123 6.14 32	101 8.31 44	101 4.39 23	0.13	5	0	170 2.79 15	26 0.54 3	541 15.26 81	22.0 0.35 2	0.2	0.84	38 1042 1120	723
20S/26E-5R 1 M 6-12-63 5126	73	8.4	640	36 1.80 28	22 1.81 28	65 2.83 43	0.08	3	7	142 2.33 36	22 0.46 7	117 3.30 50	14.0 0.23 4	0.1	0.10	19 375 360	181
20S/26E-19F 1 M 6-12-63 5123	75	8.1	405	28 1.40 34	12 0.99 24	39 1.70 41	0.08	3	0	140 2.29 56	19 0.40 10	37 1.04 25	22.0 0.35 9	0.1	0.10	32 261 282	120
TULARE IRRIGATION DIST				52225	52225												
19S/23E-24G 1 M 5-28-63 5123	70	--	236	--	--	15 0.65	--	--	--	--	--	6 0.17	--	--	0.00	--	93
19S/24E-22C 1 M 6-12-63 5123	68	--	186	--	--	23 1.00	--	--	--	--	--	5 0.14	--	--	0.00	--	47
19S/25E-31J 1 M 5-28-63 5123	69	--	141	--	--	6 0.26	--	--	--	--	--	1 0.03	--	--	0.00	--	59
LINDMORE IRRIGATION DIST				52228	52228												
20S/26E-13A 1 M 6-12-63 5123	--	8.0	1050	64 3.19 29	47 3.87 35	89 3.87 35	5 0.13 1	0	164 2.69 24	50 1.04 9	236 6.66 60	39.0 0.63 6	0.1	0.20	36 647 690	353	
20S/27E-31J 1 M 9-5-63 5123	74	7.9	591	40 2.00 35	18 1.48 26	49 2.13 37	4 0.10 2	0	204 3.34 60	23 0.48 9	39 1.10 20	42.0 0.68 12	0.2	0.09	29 345 358	174	

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicor- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluor- ide F	Boran B	Sili- co SiO ₂	IDS Computed Evap. 180°C	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY PIXLEY IRRIGATION DIST				52200	52233												
22S/25E-22A M 9-24-63 5123	73	--	270	--	--	33 1.43	--	--	--	--	10 0.28	--	--	0.10	--	71	
23S/25E-9F 1 M 9-5-63 5123	--	--	273	--	--	35 1.52	--	--	--	--	21 0.59	--	--	0.00	--	63	
ALPAUGH-ALLENSWORTH AREA					52234												
23S/24E-32P M 9-6-63 5123	78	8.0	235	3 0.15	1 0.08	56 2.43 91	0	0	116 1.90 75	17 0.35 14	10 0.28 11	0.0	1.4	0.10	30	176 182	12
24S/23E-5R 2 M 9-24-63 5123	--	--	533	--	--	90 3.91	--	--	--	--	67 1.89	--	--	0.20	--	56	
DELANO-EARLEHART I.D.					52235												
24S/25E-23H 1 M 9-24-63	77	--	439	--	--	33 1.43	--	--	--	--	19 0.54	--	--	0.00	--	139	
25S/26E-16J 1 M 8-15-63 5124	74	--	389	--	--	52 2.26	--	--	--	--	22 0.62	--	--	0.00	--	63	
SOUTHERN SAN JOAQUIN MUD					52236												
26S/25E-3R 1 M 8-15-63 5124	75	8.0	555	50 2.50 44	8 0.66 12	56 2.43 43	2 0.05 1	0	103 1.69 30	85 1.77 32	52 1.47 26	39.0 0.63 11	0.1	0.10	18	361 360	158
26S/26E-16O 1 M 8-15-63 5124	77	8.1	283	6 0.30 10	1 0.08 3	57 2.48 86	1 0.03 1	0	55 0.90 33	44 0.92 33	27 0.76 28	11.0 0.18 7	0.4	0.00	15	189 190	19

* IDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number		Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
Date sampled	Ag. Coll.				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY					52200	52237													
NORTH KERN WATER STORAGE																			
26S/24E-26R 1 M	76	8.0	173		7	1	32	1	0	69	12	10	6.0	0.2	0.10	15	118	22	
6-26-63 5124					0.35	0.08	1.39	0.03		1.13	0.25	0.28	0.10				118		
					19	4	75	2		64	14	16	6						
27S/25E-5R 1 M	78	--	353		--	--	30	--	--	--	--	9	--	--	0.00	--	--	107	
6-26-63 5124							1.30					0.25							
27S/25E-34A 2 M	--	7.9	177		8	2	29	1	0	68	5	20	1.4	0.1	0.10	14	114	28	
6-20-63 5124					0.40	0.16	1.26	0.03		1.11	0.10	0.56	0.02				104		
					22	9	68	2		62	6	31	1						
SHAFTER-MASCO IRRIG DIST					52238														
27S/24E-5R 1 M	78	--	146		--	--	27	--	--	--	--	6	--	--	0.10	--	--	10	
6-26-63 5124							1.17					0.17							
28S/25E-17L 1 M	--	--	206		--	--	28	--	--	--	--	10	--	--	0.10	--	--	28	
7-15-63 5124							1.22					0.28							
28S/26E-30A 1 M	77	--	877		--	--	60	--	--	--	--	92	--	--	0.20	--	--	289	
6-20-63 5124							2.61					2.59							
KERN RIVER DELTA AREA					52240														
29S/25E-10N 1 M	75	--	481		--	--	33	--	--	--	--	69	--	--	0.10	--	--	143	
6-26-63 5124							1.43					1.95							
29S/25E-32F 1 M	73	8.2	218		12	2	34	1	0	85	17	14	3.1	0.2	0.10	17	142	38	
6-13-63 5124					0.60	0.16	1.48	0.03		1.39	0.35	0.39	0.05				140		
					26	7	65	1		64	16	18	2						

* TDS by Evap at 105°C

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron as Fe ₂ O ₃	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY KERN RIVER DELTA AREA				52200	52240 (CONTINUED)													
29S/26E-9R 1 M 6-20-63 5124	76	8.0	660	76 3.79 56	4 0.33 5	59 2.57 38	2 0.05 1	0	107 1.75 26	154 3.21 47	60 1.69 25	9.0 0.15 2	0.1	0.20	14	431 436	206	
29S/26E-35K 1 M 9-13-63 5124	66	--	327	--	--	30 1.30	--	--	--	--	26 0.73	--	--	0.40	--	--	87	
30S/24E-14H 1 M 6-13-63 5124	71	--	762	--	--	60 2.61	--	--	--	--	22 0.62	--	--	0.20	--	--	224	
30S/25E-10C 1 M 6-13-63 5124	72	8.1	325	30 1.50 44	2 0.16 5	39 1.70 50	1 0.03 1	0	130 2.13 66	29 0.60 18	14 0.39 12	8.3 0.13 4	0.2	0.20	23	211 212	83	
30S/27E-19L 1 M 6-8-63 5124	71	8.1	332	31 1.55 45	8 0.66 19	28 1.22 35	2 0.05 1	0	135 2.21 66	32 0.67 20	13 0.37 11	4.8 0.08 2	0.1	0.20	20	205 192	111	
30S/28E-29B 1 M 6-25-63 5124	71	8.2	320	31 1.55 46	4 0.33 10	33 1.43 43	2 0.05 1	0	135 2.21 66	34 0.71 21	16 0.45 13	0.0	0.2	0.20	19	206 192	94	
31S/25E-13B 1 M 7-2-63 5124	73	8.1	305	2 0.10 3	1 0.08 3	67 2.91 93	1 0.03 1	0	94 1.54 52	20 0.42 14	36 1.02 34	0.0	1.4	0.30	22	197 184	9	
31S/26E-2J 1 M 7-2-63 5124	73	8.2	220	5 0.25 11	2 0.16 7	45 1.96 83	0	0	114 1.87 77	13 0.27 11	10 0.28 12	0.0	0.2	0.20	13	144 146	21	
32S/27E-16R 1 M 3-13-63 5124	--	--	874	--	--	85 3.70	--	--	--	--	23 0.65	--	--	0.50	--	--	271	

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactivity					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sil- ica SiO ₂	IDS Computed Evap 180°C CaCO ₃	Total hardness CaCO ₃		
SAN JOAQUIN VALLEY EDISON-MARICOPA AREA				52200	52241														
29S/29E-34N 1 M 8- 7-63 5124	81	--	601	--	--	94 4.09	--	--	--	--	--	47 1.33	--	0.20	--	58			
30S/28E-11R 1 M 6-11-63 5124	--	--	574	--	--	50 2.17	--	--	--	--	--	37 1.04	--	0.20	--	173			
30S/28E-25A 1 M 6-11-63 5124	75	--	469	--	--	47 2.04	--	--	--	--	--	27 0.76	--	0.30	--	125			
30S/29E-15H 2 M 6- 8-63 5124	74	8.1	570	56 2.79 44	17 1.40 22	47 2.04 32	4 0.10 2	0 3.84 61	234 61	58 1.21 19	43 1.21 19	0.0	0.2	0.20	15	210 348			
30S/29E-20A 1 M 6-11-63 5124	72	--	862	--	--	52 2.26	--	--	--	--	73 2.06	--	--	0.20	--	315			
30S/29E-27J 1 M 8- 7-63 5124	69	--	970	--	--	59 2.57	--	--	--	--	57 1.61	--	--	0.30	--	348			
31S/24E-28B 1 M 7- 2-63 5124	73	--	6080	--	--	779 33.87	--	--	--	--	850 23.37	--	--	4.10	--	1840			
31S/30E-30C 1 M 6-25-63 5124	71	8.0	495	50 2.50 51	9 0.74 15	35 1.52 31	4 0.10 2	0 2.46 49	150 2.46	26 0.24 11	35 0.99 20	61.0 0.98 20	0.2	0.10	19	162 294			
32S/25E-34G 1 M 7- 2-63 5124	79	7.8	3600	557 27.79 55	75 6.17 12	382 16.61 33	11 0.28 1	0 2.39 5	146 2.39	2272 47.30 92	52 1.47 3	0.0	0.2	3.00	38	1699 3810			

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	IDS Computed Eval. 180°C
SAN JOAQUIN VALLEY EDISON-MARICOPA AREA				52200	52241 (CONTINUED)											
32S/28E-12F 1 M 7- 2-63 5124	72	--	368	--	--	46 2.00	--	--	--	--	14 0.39	--	--	0.30	--	76
32S/29E-35M 2 M 7- 2-63 5124	73	7.9	990	77 3.84 35	32 2.63 24	99 4.30 39	0.15	6 0.15 1	0 3.02 29	120 2.50 24	92 2.59 25	149.0 2.40 23	0.2	0.20	17	683 666 324
11N/18W-14M 1 S 8-22-63 5124	77	--	564	--	--	24 1.04	--	--	--	--	14 0.39	--	--	0.30	--	247
11N/20W- 8R 1 S 7- 2-63 5124	78	--	1580	--	--	131 5.70	--	--	--	--	54 1.52	--	--	0.60	--	567
11N/20W-25K 1 S 7- 2-63 5124	78	--	2530	--	--	235 10.22	--	--	--	--	58 1.64	--	--	0.30	--	946
11N/22W- 8G 1 S 7- 2-63 5124	77	8.0	2900	341 17.02 42	131 10.77 27	277 12.04 30	11 0.28 1	0 0.28 1	135 2.21 6	1942 32.10 81	179 5.05 13	25.0 0.40 1	1.0	1.40	17	2392 2740 1391
12N/19W-33R 1 S 7- 2-63 5124	74	--	352	--	--	34 1.48	--	--	--	--	7 0.20	--	--	0.20	--	98
BUENA VISTA WATER STORAGE					52242											
27S/22E-21P 1 M 2- 7-63 5640	67	7.8	2990	224 11.18 36	24 1.97 6	412 17.91 58	3 0.08	0 0.08	136 2.23 7	592 12.33 41	553 15.59 52	1.3 0.02	0.4	1.50	34	1912 1960 658
27S/22E-28G 2 M 2- 8-63 5640	68	8.1	1660	100 4.99 30	8 0.66 4	250 10.87 66	1 0.03	0 0.03	157 2.57 16	420 8.74 54	173 4.88 30	1.2 0.02	0.4	0.64	24	1055 1070 283

* TDS by Evap at 105°C

TABLE E - 1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	TD _S Computed Evap. 180°C
SAN JOAQUIN VALLEY BUENA VISTA WATER STORAGE				52200	52242 (CONTINUED)											
28S/22E-4A 1 M 2-18-63 5640	67	--	2400	--	--	397 17.26	1 0.03	--	--	--	443 12.49	--	--	0.74	--	309
28S/22E-10R 1 M 2-7-63 5640	67	--	1270	--	--	188 8.17	1 0.03	--	--	--	101 2.85	--	--	0.56	--	244
28S/22E-26J 1 M 2-7-63 5640	--	8.0	1170	100 4.99 40	16 1.32 11	141 6.13 49	2 0.05	0	215 3.52 29	334 6.95 57	58 1.64 14	1.1 0.02	0.4	0.49	29	316 788
28S/22E-36N 1 M 2-7-63 5640	67	--	1520	--	--	198 8.61	2 0.05	--	--	--	105 2.96	--	--	0.71	--	357
30S/23E-1C 3 M 2-7-63 5640	69	--	602	--	--	114 4.96	1 0.03	--	--	--	150 4.23	--	--	0.41	--	28
31S/25E-25H 1 M 3-4-63 5640	73	--	434	--	--	75 3.26	1 0.03	--	--	--	7 0.20	--	--	0.47	--	44
32S/27E-6D 1 M 3-13-63 5640	74	--	393	--	--	70 3.04	1 0.03	--	--	--	10 0.28	--	--	0.32	--	31
SEMITROPIC WATER STORAGE					52243											
25S/22E-2P 2 M 5-15-63 5124	74	8.2	270	3 0.15 5	1 0.08 3	58 2.52 92	0	0	96 1.57 59	33 0.69 26	15 0.42 16	0.0	0.4	0.20	18	176 182
25S/25E-40 1 M 8-15-63 5124	73	--	442	--	--	36 1.57	--	--	--	--	31 0.87	--	--	0.00	--	127

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million				Total hardness CaCO ₃	
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂		IDS Computed Expressed as CaCO ₃
SAN JOAQUIN VALLEY SEMITROPIC WATER STORAGE				52200	52243 (CONTINUED)												
26S/22E-10G 1 M 8-15-63 5124	73	8.5	217	2 0.10	1 0.08	47 2.04	0	2 0.07	77 1.26	17 0.35	16 0.45	0.0	0.6	0.10	24	148 148	9
26S/22E-27O 1 M 8-15-63 5124	75	7.6	2700	132 6.59 22	17 1.40 5	490 21.31 73	2 0.05	0	90 1.48 5	403 8.39 29	677 19.09 66	0.0	1.0	1.20	19	1786 1750	400
26S/24E-3R 1 M 8-15-63 5124	77	--	170	--	--	32 1.39	--	--	--	--	7 0.20	--	--	0.10	--	--	9
27S/22E-20 2 M 2-8-63 5640	74	--	4080	--	--	722 31.39	2 0.05	--	--	--	1140 32.15	--	--	1.40	--	--	383
27S/23E-27J 1 M 6-26-63 5124	80	--	281	--	--	55 2.39	--	--	--	--	47 1.33	--	--	0.10	--	--	8
28S/23E-25P 1 M 6-26-63 5124	72	--	537	--	--	81 3.52	--	--	--	--	71 2.00	--	--	0.10	--	--	58
AVENAL-MCKITTRICK AREA				52244													
22S/17E-15M 2 M 7-11-63 5126	80	7.8	1340	41 2.05 15	6 0.49 3	265 11.52 82	2 0.05	0	73 1.20 9	45 0.94 7	411 11.59 84	1.3 0.02	0.2	0.70	28	836 906	127
22S/19E-20N 3 M 7-11-63 5126	78	8.2	1180	12 0.60 5	6 0.49 4	238 10.35 90	2 0.05	0	361 5.92 51	43 0.90 8	169 4.77 41	0.0	--	1.10	--	649	55
23S/18E-29E 1 M 7-11-63 5126	92	8.2	2875	114 5.69 15	89 7.32 19	560 24.35 65	9 0.23 1	0	182 2.98 8	1458 30.36 82	124 3.50 9	4.5 0.07	0.4	2.80	42	2493 2480	651

* TDS by Evap at 105°C

TABLE E - 1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boran B	Sili- ca SiO ₂	I.D.S. Computed Evap 180°C CaCO ₃	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY AVENAL-MCKITTRICK AREA				52200	52244	(CONTINUED)												
24S/18E-190 1 M 7-25-63 5126	71	8.4	1470	80 3.99 23	72 5.92 34	175 7.61 43	4 0.10 1	4 0.13 1	4 4.13 23	513 10.68 60	90 2.54 14	17.0 0.27 2		1.60	26	1107 1084	496	
24S/19E-30N 1 M 7-11-63 5126	76	8.1	2560	128 6.39 22	147 12.09 42	231 10.04 35	7 0.18 1	0 0.18 1	262 4.29 15	810 16.86 58	262 7.39 25	29.0 0.47 2		1.80	--	1745 1950	925	
25S/18E-3N 2 M 8- 8-63 5124	73	--	4220	--	--	295 12.83	--	--	--	--	719 20.28	--		2.20	--		1710	
25S/19E-7P 1 M 8- 8-63 5124	78	--	5310	--	--	674 29.31	--	--	--	--	404 11.39	--		7.70	--		1470	
25S/19E-238 1 M 8- 8-63 5124	80	7.6	3425	160 7.98 18	141 11.60 27	550 23.91 55	1 0.03	0	259 4.25 10	1389 28.92 67	355 10.01 23	4.5 0.07	0.4	2.80	33	2764 2930	980	
26S/18E-1A 1 M 8- 8-63 5124	66	7.9	5120	107 5.34 10	120 9.87 19	862 37.48 71	4 0.10	0	379 6.21 12	612 14.74 24	1180 33.28 64	1.0 0.02	--	2.60	--	3075 3190	761	
26S/18E-23M 2 M 8- 8-63 5124	76	8.2	2475	120 5.99 20	106 8.72 30	335 14.57 50	3 0.08	0	229 3.75 13	894 18.61 64	223 6.29 22	20.0 0.32 1	0.4	1.80	35	1851 1970	736	
27S/19E-28H 1 M 8-15-63 5124	--	7.2	6700	417 20.81 22	180 14.80 16	1325 57.61 62	10 0.26	0	501 8.21 9	2620 54.55 59	1035 29.19 32	0.0	0.6	7.20	17	5858 5830	1782	
27S/20E-34G 1 M 6- 8-63 5124	83	--	4040	--	--	815 35.44	--	--	--	--	689 19.43	--		13.00	--		161	

TABLE E - 1

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
Date sampled	Avg. Cal.			Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY TULARE LAKE-LOST HILLS				52200	52245											
23S/21E-18D 1 M 7-11-63 5126	71	--	11700	--	--	2340 101.74	--	--	--	--	3450 97.29	--	--	7.60	--	1010
24S/22E-35N 1 M 7-11-63 5126	68	7.7	483	18 0.90 19	3 0.25 5	84 3.65 76	1 0.03 1	0	188 3.08 65	59 1.23 26	15 0.42 9	0.0	--	0.20	--	273 306
CORCORAN IRRIGATION DIST				52246												
21S/22E-13G 1 M 7-11-63 5126	67	--	292	--	--	46 2.00	--	--	--	--	15 0.42	--	--	0.10	--	51
21S/22E-22M 2 M 7-11-63 5126	71	--	1120	--	--	212 9.22	--	--	--	--	152 4.29	--	--	0.40	--	108
22S/22E-10A 1 M 7-11-63 5126	77	--	294	--	--	54 2.35	--	--	--	--	14 0.39	--	--	0.20	--	31
MENDOTA-HURON AREA				52247												
13S/14E-15B 1 M 8-26-63 5050	76	--	2450	--	--	488 21.22	--	--	--	--	300 8.46	--	--	1.10	--	108
13S/14E-34M 1 M 8-26-63 5050	73	--	4670	--	--	578 25.13	--	--	--	--	699 19.71	--	--	2.20	--	1320
14S/13E-12N 1 M 8-13-63 5050	87	--	2930	--	--	556 24.17	--	--	--	--	586 16.53	--	--	1.30	--	165

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY MENDOTA-HURON		AREA		52200	52247	CONTINUED)											
14S/13E-25N 1 M 8-13-63 5050	86	--	2600	--	--	390 16.96	--	--	--	--	218 6.15	--	--	2.20	--		533
14S/14E-9E 1 M 8-13-63 5050	80	--	4190	--	--	439 19.09	--	--	--	--	631 17.79	--	--	1.80	--		1390
14S/14E-33N 1 M 8-26-63 5050	78	8.2	1675	108 5.39 25	94 7.73 36	193 8.39 39	6 0.15 1	0	207 3.39 16	770 16.03 73	85 2.40 11	0.9 0.01	0.2	1.90	37	1398 1440	657
14S/15E-28L 1 M 8-1-63 5050	80	--	1500	--	--	273 11.87	--	--	--	--	77 2.17	--	--	1.40	--		103
15S/14E-36O 2 M 8-13-63 5050	87	--	1650	--	--	301 13.09	--	--	--	--	84 2.37	--	--	2.00	--		133
15S/15E-20N 2 M 8-13-63 5050	73	--	1820	--	--	143 6.22	--	--	--	--	79 2.23	--	--	0.70	--		711
15S/15E-25N 1 M 8-13-63 5050	72	8.2	3100	267 13.32 30	161 13.24 30	395 17.17 39	7 0.18	0	176 2.88 7	1664 34.64 80	209 5.89 14	0.0	0.2	1.30	30	2821 3050	1329
16S/14E-100 1 M 8-13-63 5050	87	--	1510	--	--	195 8.48	--	--	--	--	36 1.02	--	--	1.80	--		328
16S/15E-8N 1 M 8-13-63 5050	--	--	1490	--	--	148 6.44	--	--	--	--	55 1.55	--	--	1.00	--		466

* TDS br. Evap at 105°C

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value						Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	SiO ₂	IDS Computed Evap.180°C	Total hardness as CaCO ₃			
SAN JOAQUIN VALLEY MENDOTA-HURON				52200	52247	(CONTINUED)														
16S/15E-250 1 M 8-26-63 5050	78	8.2	1570	96 4.79 24	91 7.48 37	175 7.61 38	4 0.10 1	0	168 2.75 14	738 15.37 76	77 2.17 11	0.0	0.2	1.20	32	1297 1450	614			
16S/16E-9N 2 M 8-13-63 5050	76	8.1	1375	86 4.29 26	33 2.71 17	210 9.13 56	5 0.13 1	0	150 2.46 15	584 12.16 74	64 1.80 11	0.9 0.01	0.2	1.10	36	1094 1050	350			
17S/16E-18E 1 M 8-22-63 5050	88	--	1530	--	--	267 11.61	--	--	--	--	112 3.16	--	--	1.70	--	--	127			
17S/17E-23Q 1 M 8-22-63 5050	76	--	1340	--	--	176 7.65	--	--	--	--	50 1.41	--	--	0.80	--	--	265			
17S/17E-27R 1 M 8-22-63 5050	75	--	1370	--	--	172 7.48	--	--	--	--	51 1.44	--	--	0.70	--	--	301			
17S/17E-28R 1 M 8-22-63 5050	72	--	3670	--	--	393 17.09	--	--	--	--	166 4.68	--	--	2.20	--	--	1280			
18S/15E-24N 1 M 8-22-63 5050	92	--	2470	--	--	384 16.70	--	--	--	--	202 5.70	--	--	2.70	--	--	403			
18S/17E-13N 1 M 8-22-63 5050	88	--	1180	--	--	216 9.39	--	--	--	--	143 4.03	--	--	1.40	--	--	61			
18S/17E-30P 1 M 8-22-63 5050	--	--	3020	--	--	568 24.70	--	--	--	--	768 21.66	--	--	1.60	--	--	168			

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent			Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed by Difference	Total hardness CaCO ₃	
SAN JOAQUIN VALLEY MENDOTA-HURON AREA				52200	52247 (CONTINUED)													
18S/19E-6A 1 M 68	298	9.0		1	0	71	0	15	133		6	10	0.0	1.2	0.40	24	194	3
8-19-63 5000				0.05		3.09		0.50	2.18		0.12	0.28						
				2		98		16	71		4	9						
19S/17E-13N 1 M 8-22-63 5050	1400	--		--	--	144	--	--	--		--	56	--	--	0.70	--		406
						6.26						1.58						
19S/18E-230 2 M 8-22-63 5050	1680	--		--	--	220	--	--	--		--	100	--	--	1.00	--		365
						9.57						2.82						
19S/18E-28E 1 M 8-22-63 5050	1870	--		--	--	351	--	--	--		--	328	--	--	1.30	--		129
						15.26						9.25						
19S/19E-15N 1 M 7-11-63 5050	1750	8.1		78	5	289	2	0	200		437	178	2.0	--	1.50	--	1091	215
				3.89	0.41	12.57	0.05		3.28		9.10	5.02	0.03	--			1180	
				23	2	74			19		52	29						
20S/15E-250 2 M 8-23-63 5050	2170	--		--	--	224	--	--	--		--	133	--	--	1.50	--		677
						9.74						3.75						
20S/17E-11N 1 M 8-23-63 5050	1570	--		--	--	154	--	--	--		--	56	--	--	1.00	--		500
						6.70						1.58						
20S/17E-360 1 M 8-23-63 5050	1330	--		--	--	134	--	--	--		--	35	--	--	0.60	--		391
						5.83						0.99						
21S/18E-10 1 M 7-11-63 5126	1540	--		--	--	136	--	--	--		--	66	--	--	0.70	--		391
						8.09						1.86						

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap 180°C CaCO ₃
SAN JOAQUIN VALLEY MENDOTA-HURON AREA				52200	52247	(CONTINUED)										
215/18E-17M 1 M	76	7.8	1200	84	37	116	3	0	106	487	28	6.6	--	0.40	--	814
7-11-63 5126				4.19	3.04	5.04	0.08		1.74	10.14	0.79	0.11				362
				34	25	41	1		14	79	6	1				
SAN LUIS CANAL COMPANY				52249												
95/11E-26N 1 M	65	8.2	880	29	11	157	2	0	188	83	156	0.0	0.1	0.40	18	549
6-27-63 5050				1.45	0.90	6.83	0.05		3.08	1.73	4.40					118
				16	10	74	1		33	19	48					
105/12E-6K 1 M	--	--	859	--	--	118	--	--	--	--	134	--	--	0.30	--	149
7-18-63 5641				--	--	5.13	--	--	--	--	3.78	--	--			
STANISLAUS PLAINS				52253												
1N/10E-17G 1 M	69	--	268	--	--	17	--	--	--	--	15	--	--	0.20	--	97
8-14-63 5122						0.74					0.42					
15/11E-25N 1 M	70	--	336	--	--	18	--	--	--	--	10	--	--	0.20	--	121
6-28-63 5122						0.78					0.28					
35/11E-4N 1 M	71	--	307	--	--	21	--	--	--	--	23	--	--	0.00	--	97
8-14-63 5122						0.91					0.65					
35/12E-35C 1 M	68	--	4300	--	--	418	--	--	--	--	1320	6.6	--	0.40	--	1010
6-28-63 5122						18.17					37.22	--	--			
55/12E-6D 1 M	71	--	216	--	--	20	--	--	--	--	10	--	--	0.10	--	59
6-28-63 5122						0.87					0.28					

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY MERCED BOTTOMS																	
7S/10E-7M 1 M	--	8.4	940	52200	52254												
8-26-63 5641				36	6	185	3	10	374	65	86	0.0	0.2	0.20	29	604	115
				1.80	0.49	8.04	0.08	0.33	6.13	1.35	2.43					616	
				17	5	77	1	3	60	13	24						
8S/12E-16H 1 M	69	8.4	612	50	25	47	1	5	327	15	24	2.6	0.2	0.06	57	388	228
7-18-63 5050				2.50	2.06	2.04	0.03	0.17	5.36	0.31	0.68	0.04				394	
				38	31	31		3	82	5	10	1					
8S/14E-24A 1 M	67	--	437	--	--	24	--	--	--	--	3	--	--	0.00	--	--	170
8-19-63 5525						1.04					0.08						
9S/12E-17H 1 M	69	8.2	810	24	3	160	1	0	160	69	148	0.0	0.2	0.10	26	510	73
8-28-63 5050				1.20	0.25	6.96	0.03		2.62	1.44	4.17					488	
				14	3	82			32	17	51						
9S/13E-29L 1 M	74	8.0	785	54	17	90	1	0	132	10	197	0.0	0.2	0.10	37	471	205
7-17-63 5050				2.69	1.40	3.91	0.03		2.16	0.21	5.26					494	
				33	17	49			27	3	70						
NORTH MERCED PLAINS																	
4S/14E-8J 1 M	73	7.9	239	20	7	23	1	0	90	3	23	20.0	0.2	0.10	57	199	79
8-28-63 5050				1.00	0.58	1.00	0.03		1.48	0.06	0.65	0.32				202	
				38	22	38	1		59	2	26	13					
5S/12E-32P 1 M	74	--	156	--	--	15	--	--	--	--	9	--	--	0.10	--	--	38
7-18-63 5050						0.65					0.25						
5S/14E-3P 1 M	78	7.1	143	13	8	4	1	0	69	8	5	0.0	0.2	0.10	13	86	66
7-18-63 5050				0.65	0.66	0.17	0.03		1.13	0.17	0.14					78	
				43	44	11	2		78	12	10						

TABLE E-1

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY				52200	52257											
NORTH MADERA PLAINS																
9S/15E-24F 1 M 8- 7-63 5050	73	--	240	--	--	18 0.78	--	--	--	--	19 0.54	--	--	0.00	--	75
10S/17E-25N 1 M 8- 7-63 5050	75	--	238	--	--	19 0.83	--	--	--	--	16 0.45	--	--	0.00	--	71
NORTH FRESNO PLAINS																
12S/21E-6K 1 M 8-20-63 5000	--	7.2	262	20 1.00 4.1	7 0.58 24	18 0.78 32	3 0.08 3	0	91 1.49 77	5 0.10 5	11 0.31 16	2.7 0.04 2	0.0	0.10	71	183 79
12S/22E-20R 1 M 8- 8-63 5000	70	7.7	602	52 2.59 39	32 2.63 40	30 1.30 20	3 0.08 1	0	334 5.47 83	17 0.35 5	23 0.65 10	6.0 0.10 2	0.1	0.00	49	376 261
13S/22E-14D 1 M 8- 8-63 5000	71	7.6	553	30 1.50 27	35 2.88 52	25 1.09 20	2 0.05 1	0	270 4.43 82	10 0.21 4	18 0.51 9	14.0 0.23 4	0.2	0.00	45	312 219
13S/23E-7N 2 M 8-13-63 5000	66	8.0	382	42 2.10 54	7 0.58 15	27 1.17 30	2 0.05 1	0	180 2.95 78	17 0.35 9	11 0.31 8	10.0 0.16 4	0.4	0.11	32	237 234 134
NORTH TULARE PLAINS																
14S/24E-36L 1 M 8- 8-63 5000	70	7.5	447	38 1.90 40	17 1.40 30	31 1.35 29	3 0.08 2	0	218 3.57 76	11 0.23 5	14 0.39 8	30.0 0.48 10	0.2	0.60	50	302 165
15S/25E-8C 1 M 8-13-63 5000	67	7.2	544	50 2.50 46	14 1.15 21	41 1.78 32	2 0.05 1	0	188 3.08 58	39 0.81 15	20 0.56 11	52.0 0.84 16	0.4	0.00	54	365 183

* TDS by Evap at 105°C

TABLE E-1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap 180°C	Total hardness CaCO ₃				
SAN JOAQUIN VALLEY NORTH TULARE PLAINS				52200	52261	(CONTINUED)															
15S/25E-16R 1 M 8-9-63 5000	71	8.4	606	61 3.04 47	18 1.48 23	43 1.87 29	2 0.05 1	4 0.13 2	256 4.20 66	15 0.31 5	58 1.64 26	4.7 0.08 1	0.2	0.00	48	380	226				
15S/25E-19H 1 M 8-9-63 5000	68	8.4	625	59 2.94 44	23 1.89 28	42 1.83 27	2 0.05 1	16 0.53 8	204 3.34 51	26 0.54 8	59 1.66 25	29.0 0.47 7	0.3	0.10	44	401	242				
18S/26E-10M 1 M 7-29-63 5123	67	8.1	680	65 3.24 44	22 1.81 25	52 2.26 31	2 0.05 1	0 0 1	268 4.39 60	48 1.00 14	22 0.62 9	78.0 1.26 17	0.1	0.10	31	452 454	253				
SOUTH TULARE PLAINS					52262												242				
21S/27E-15P 2 M 8-28-63 5123	74	--	572	--	--	28 1.22	--	--	--	--	25 0.71	--	--	0.10	--	--					
21S/27E-27F 1 M 9-5-63 5123	80	--	492	--	--	57 2.48	--	--	--	--	34 0.96	--	--	1.00	--	--	101				
22S/27E-11C 1 M 9-5-63 5123	80	--	540	--	--	28 1.22	--	--	--	--	12 0.34	--	--	0.10	--	--	230				
KERN PLAINS					52263																
25S/26E-1R 1 M 6-11-63 5124	76	--	360	--	--	50 2.17	--	--	--	--	25 0.71	--	--	0.20	--	--	54				
25S/27E-4C 1 M 6-20-63 5124	86	8.1	455	15 0.75 16	23 0.08 2	90 3.91 81	3 0.08 2	0	120 1.97 42	62 1.29 27	50 1.41 30	1.8 0.03 1	0.4	0.20	33	315 308	42				

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY KERN PLAINS				52200	52263	(CONTINUED)										
26S/27E-9G 1 M 6-11-63 5124	74	--	1790	--	--	110 4.78	--	--	--	--	222 6.26	--	--	0.10	--	697
27S/26E-27R 1 M 6-20-63 5124	76	--	545	--	--	50 2.17	--	--	--	--	78 2.20	--	--	0.20	--	131
27S/27E-29J 1 M 8-14-63 5124	73	--	1050	--	--	96 4.17	--	--	--	--	199 5.61	--	--	0.40	--	283
28S/26E-11A 1 M 7-15-63 5124	78	--	610	--	--	74 3.22	--	--	--	--	103 2.90	--	--	0.10	--	81
28S/27E-7C 1 M 6-11-63 5124	78	--	276	--	--	59 2.57	--	--	--	--	39 1.10	--	--	0.00	--	5
28S/27E-28L 1 M 7-15-63 5124	80	7.8	238	2 0.10 4	1 0.08 3	55 2.39 93	0	0	75 1.23 49	35 0.73 29	19 0.54 22	0.0	0.2	0.00	15	164 172 9
CENTERVILLE BOTTOMS																
14S/22E-25P 1 M 8-12-63 5050	77	8.0	360	30 1.50 42	9 0.74 21	29 1.26 35	2 0.05 1	0	172 2.82 79	14 0.29 8	17 0.48 13	0.1	0.1	0.18	20	206 209 112
14S/23E-8D 1 M 8-13-63 5000	68	7.3	215	16 0.80 41	10 0.82 42	7 0.30 15	2 0.05 3	0	95 1.56 78	7 0.15 8	5 0.14 7	9.6 0.15 8	0.0	0.00	26	129 81

* TDS by Evap at 105°C

TABLE E - 1
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	IDS Computed Evap 180°C
SAN JOAQUIN VALLEY KINGS COUNTY				52200	52266											
19S/265-3K 1 M 6-12-63 5123	73	--	552	--	--	44 1.91	--	--	--	--	41 1.16	--	--	0.00	--	182
CENTRAL CALIF.																
6S/ 9E-18F 1 M 8-17-63 5641	--	--	637	--	52267	42 1.83	--	--	--	--	18 0.51	--	--	0.30	--	250
7S/ 8E-12P 1 M 8- 6-63 5641	--	--	970	--	--	73 3.17	--	--	--	--	84 2.37	--	--	0.40	--	348
7S/ 8E-13F 1 M 8- 6-63 5641	--	8.1	1000	68 3.39 30	39 3.21 28	110 4.78 42	3 0.08 1	0 349 5.72 50	115 2.39 21	106 2.99 26	14.0 0.23 2	0.1	0.50	21	648 663	330
7S/ 8E-23R 1 M 8- 6-63 5641	--	--	1480	--	--	147 6.39	--	--	--	--	277 7.81	--	--	0.50	--	402
7S/ 9E-32H 1 M 8- 6-63 5641	--	--	1030	--	--	92 4.00	--	--	--	--	68 1.92	--	--	0.50	--	336
8S/ 9E-16E 1 M 7-23-63 5641	--	--	986	--	--	88 3.83	--	--	--	--	74 2.09	--	--	0.60	--	333
9S/ 9E- 5B 1 M 7-23-63 5641	--	--	986	--	--	100 4.35	--	--	--	--	89 2.51	--	--	0.80	--	292
9S/13E-31D 1 M 7-18-63 5641	--	--	802	--	--	98 4.26	--	--	--	--	142 4.00	--	--	0.00	--	161

ANALYSES OF GROUND WATER

1963

State well number	Temp. when sampled of	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in						ports per million equivalents per percent reactance value				Mineral constituents in parts per million			
Date sampled	Avg. Colli.			Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boran B	Silica SiO ₂	Computed hardness Evap 180°C CaCO ₃	Total hardness CaCO ₃
SAN JOAQUIN VALLEY CENTRAL CALIF.				52200	52267	(CONTINUED)											
10S/10E-28D 1 M 7-23-63 5641	--	--	705	--	--	38 1.65	--	--	--	--	63 1.78	--	--	0.40	--	--	285
10S/12E-25L 1 M 7-18-63 5641	--	8.2	810	43 2.15 26	12 0.99 12	119 5.17 62	2 0.05 1	0	143 2.34 29	58 1.21 15	165 4.35 57	0.0	0.2	0.20	15	485 496	157
10S/12E-27K 1 M 7-23-63 5641	--	--	1640	--	--	195 8.48	--	--	--	--	374 10.55	--	--	0.40	--	--	328
10S/12E-35K 1 M 7-23-63 5641	--	--	2070	--	--	284 12.35	--	--	--	--	514 14.49	--	--	0.70	--	--	345
11S/10E-23K 1 M 8-16-63 5641	--	--	4600	--	--	500 21.74	--	--	--	--	840 23.69	--	--	1.80	--	--	1460
11S/12E-13J 1 M 7-23-63 5641	--	--	1770	--	--	192 8.35	--	--	--	--	407 11.48	--	--	0.30	--	--	417
11S/13E-17F 1 M 7-23-63 5641	--	--	1360	--	--	195 8.48	--	--	--	--	275 7.76	--	--	0.60	--	--	205
11S/13E-36B 1 M 7-23-63 5641	--	--	1240	--	--	195 8.48	--	--	--	--	241 6.80	--	--	0.40	--	--	134
12S/14E-29B 1 M 7-23-63 5641	--	--	1190	--	--	160 6.96	--	--	--	--	208 5.87	--	--	0.40	--	--	200

* TDS by Evap at 105°C

TABLE E - I
ANALYSES OF GROUND WATER
1963

State well number	Temp. when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- tro- NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.D.S. Computed Evap. I.D.S.	Total hardness as CaCO ₃
SAN JOAQUIN VALLEY CENTRAL CALIF.				52200	52267 (CONTINUED)												
13S/15E-18L 1 M 7-23-63 5641	--	--	480	--	--	98 4.26	--	--	--	--	51 1.44	--	--	0.40	--		7
PANOCHE VALLEY				52300													
15S/10E-20D 1 M 4- 3-63 5050	78	7.8	1350	107 5.34 37	48 3.95 27	120 5.22 36	4 0.10	0	342 5.61 37	380 7.91 53	50 1.41 9	6.1 0.10 1	0.3	1.70	52	937 960	465
15S/10E-21C 1 M 4- 3-63 5050	86	8.0	1710	107 5.34 28	66 5.43 29	186 8.09 43	5 0.13 1	0	280 4.59 24	606 12.62 66	63 1.78 9	1.6 0.03	0.3	3.00	52	1228 1280	539
15S/10E-21L 1 M 4- 3-63 5050	--	--	1780	--	--	154 6.70	6 0.15	--	--	--	53 1.49	--	--	2.00	--		651
15S/10E-22D 1 M 4- 3-63 5050	74	7.9	1280	87 4.34 33	48 3.95 30	109 4.74 36	3 0.08	0	150 2.46 18	457 9.51 71	44 1.24 9	9.1 0.15 1	0.5	1.20	49	882 914	415
15S/11E-30C 1 M 4- 3-63 5050	74	8.0	3310	172 8.58 23	143 11.76 31	403 17.52 46	6 0.15	0	188 3.08 8	1430 29.77 76	231 6.51 17	3.9 0.06	0.3	8.60	50	2540 2750	1018
CUMMINGS VALLEY				52700													
32S/31E-35N 1 M 6-10-63 5050	--	8.0	441	43 2.15 49	11 0.90 21	28 1.22 28	4 0.10	0	158 2.59 60	.55 1.15 26	18 0.51 12	6.5 0.10 2	0.4	0.07	49	293 266	153
32S/32E-190 1 M 6-10-63 5124	--	8.0	557	64 3.19 57	11 0.90 16	32 1.39 25	4 0.10	0	145 2.38 44	115 2.39 44	19 0.54 10	10.0 0.16 3	0.4	0.10	45	372 366	205

ANALYSES OF GROUND WATER

1963

State well number	Temp when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	TD Computed Evap 180°C	Total hardness CaCO ₃	
CUMMINGS VALLEY				52700 (CONTINUED)														
32S/32E-27P M 6-14-63 5050	62	7.7	477	57 2.84 59	14 1.15 24	18 0.78 16	1 0.03 1	0 3.52 72	215 3.52 72	43 0.90 18	8 0.23 5	14.0 0.23 5	0.1	0.03	32	293 301	200	
32S/32E-28H M 6-11-63 5050	--	7.7	545	70 3.49 59	20 1.64 28	18 0.78 13	1 0.03 1	0 4.31 75	263 4.31 75	43 0.90 16	9 0.25 4	16.0 0.26 5	0.2	0.05	53	360 370	257	
TEHACHAPI VALLEY				52800														
32S/32E-13P M 6-11-63 5050	--	8.4	429	48 2.40 54	8 0.66 15	30 1.30 29	2 0.05 1	3 0.10 2	187 3.06 70	36 0.75 17	13 0.37 8	5.9 0.10 2	0.4	0.14	28	266 265	153	
32S/32E-260 M 6-12-63 5050	--	8.4	1060	167 8.33 69	24 1.97 16	38 1.65 14	2 0.05 3	12 0.40 3	299 4.90 41	258 5.37 45	35 0.99 8	16.0 0.26 2	0.2	0.09	36	735 798	515	
32S/33E-27D M 6-13-63 5050	--	8.3	672	97 4.84 71	11 0.90 13	25 1.09 16	1 0.03 1	0 2.98 49	182 2.98 49	56 1.17 19	35 0.99 16	56.0 0.90 15	0.1	0.00	22	393 427	287	
32S/33E-29P 1 M 6-12-63 5050	--	7.9	243	27 1.35 58	5 0.41 18	12 0.52 23	1 0.03 1	0 1.41 61	86 1.41 61	7 0.15 6	8 0.23 10	32.0 0.52 23	0.4	0.05	36	171 169	88	
32S/33E-30C M 6-12-63 5050	--	8.5	498	67 3.34 62	11 0.90 17	26 1.13 21	2 0.05 1	5 0.17 3	241 3.95 74	42 0.87 16	11 0.31 6	4.3 0.07 1	0.2	0.07	25	312 306	212	
32S/34E-34B M 6-13-63 5050	--	8.5	645	46 2.30 34	13 1.07 16	75 3.26 49	2 0.05 1	9 0.30 5	237 3.88 60	61 1.27 20	14 0.39 6	40.0 0.65 10	0.6	0.13	32	410 410	169	

* TDS by Evap at 105°C

TABLE E-2
HEAVY METAL ANALYSES OF GROUND WATER

Well Location Number	Use	Date	Constituents in Parts Per Billion													Zinc (Zn)
			Aluminum (Al)	Arsenic (As)	Beryllium (Be)	Selenium (Se)	Cadmium (Cd)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Manganese (Mn)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)
35/75 - 1342 - M	Irrigation	6-26-63	10	10				Modesto Irrigation District	0	0		0		0		0
43/98 - 3081 - M	Drainage	9-19-63	50	0				Turlock Irrigation District	0	0		0		0		0
43/113 - 2121 - M	Drainage	9-19-63	20	0					0	10		0		0		0
59/108 - 2881 - M	Drainage	9-26-63	110	0					0	0		0		0		0
66/113 - 921 - M	Drainage	9-13-63	0	0					0	0		0		0		0
95/142 - 208 - M	Irrigation	6-27-63	100	0				El Nido Irrigation District	0	10		0		0		40
45/78 - 3411 - M	Irrigation	7-17-63	20	0				Delta Mendota Area	0	10		0		0		0
95/98 - 2121 - M	Irrigation	7-23-63	20	0					20	0		0		0		0
95/108 - 3561 - M	Irrigation	7-22-63	30	10					0	450		0		0		50
185/198 - 601 - M	Irrigation	7-30-63	90	0				Lower Kings River Area	10	30		0		10		0
205/228 - 141 - M	Dom. & Irr.	7-11-63	120	20				Kaweah Delta Water Conservation District	0	10		0		0		0
225/198 - 201 - M	Irrigation	7-11-63	20	0				Avenal-McKittrick Area	10	0		0		0		0
245/198 - 3081 - M	Irrigation	7-11-63	110	0					0	20		0		0		0

> More than the amount indicated.
< Less than the amount indicated.
Blank space indicates constituent not analyzed.

Table E-3
QUALITY OF GROUND WATERS IN CALIFORNIA
RADIOASSAY OF GROUND WATER
1963

WELL NUMBER	DATE SAMPLED	GROSS ACTIVITY ^a	DATE ANALYZED
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Central California Irrigation District

6S-9E-18F1-M	8-17-63	9.5 \pm 4.8	11-07-63
7S-8E-12P1-M	8- 6-63	10.3 \pm 4.8	11-12-63
7S-8E-13F1-M	8- 6-63	13.0 \pm 4.8	11-12-63
7S-8E-23R1-M	8- 6-63	4.0 \pm 4.6	11-07-63
7S-9E-32H1-M	8- 6-63	1.7 \pm 4.6	11-07-63
8S-9E-16E1-M	7-23-63	5.8 \pm 4.6	11-07-63
9S-9E-5B1-M	7-23-63	0 \pm 4.6	11-07-63
9S-13E-31D1-M	7-18-63	0.6 \pm 4.6	11-07-63
10S-10E-28D1-M	7-23-63	3.1 \pm 4.7	11-07-63
10S-12E-25L-M	7-18-63	4.0 \pm 4.6	11-07-63
10S-12E-27K1-M	7-23-63	0 \pm 4.5	11-07-63
10S-12E-35K1-M	7-23-63	3.2 \pm 4.6	11-07-63
11S-10E-23K1-M	8-16-63	9.0 \pm 4.7	11-07-63
11S-12E-13J1-M	7-23-63	0.3 \pm 4.6	11-07-63
11S-13E-17F1-M	7-23-63	2.2 \pm 4.6	11-07-63
11S-13E-36B1-M	7-23-63	9.5 \pm 4.7	11-07-63
12S-14E-29B1-M	7-23-63	7.0 \pm 4.7	11-07-63
13S-15E-18L1-M	7-23-63	7.1 \pm 4.6	11-07-63

Table E-3
QUALITY OF GROUND WATERS IN CALIFORNIA
RADIOASSAY OF GROUND WATER
1963

WELL NUMBER	DATE SAMPLED	GROSS ACTIVITY ^a	DATE ANALYZED
Oakdale Irrigation District			
1S-10E-33R1-M	8-19-63	9.3 \pm 4.8	11-15-63
2S-10E-10D1-M	8-14-63	0 \pm 4.6	11-26-63
2S-10E-27G1-M	8-14-63	0 \pm 4.7	11-26-63
3S-10E-13A1-M	6-28-63	7.6 \pm 4.8	11-15-63
Modesto Irrigation District			
4S-10E-1D1-M	7-30-63	7.3 \pm 4.8	11-26-63
Turlock Irrigation District			
4S-11E-5M1-M	9- 5-63	0 \pm 4.7	11-26-63
Merced Irrigation District			
6S-11E-27K1-M	7- 1-63	1.3 \pm 4.6	11-15-63
6S-11E-36P1-M	7- 9-63	0.9 \pm 4.7	11-15-63
6S-12E-21N1-M	7- 9-63	4.2 \pm 4.7	11-15-63
7S-11E-4M1-M	7- 2-63	45.9 \pm 5.3	11-15-63
7S-12E-1Q1-M	9-10-63	0 \pm 4.7	11-15-63
7S-12E-19A1-M	6-20-63	3.3 \pm 4.7	11-15-63
7S-13E-4P1-M	7- 9-63	3.4 \pm 4.7	11-15-63
7S-13E-22C1-M	7-23-63	6.1 \pm 4.8	11-15-63
7S-14E-9R1-M	8- 8-63	1.6 \pm 4.7	11-15-63
7S-14E-31M1-M	8- 8-63	6.6 \pm 4.8	11-15-63
7S-15E-18K1-M	8- 7-63	7.9 \pm 4.8	11-15-63
7S-15E-30E1-M	8- 7-63	6.4 \pm 4.8	11-15-63
8S-14E-2D1-M	8-21-63	0 \pm 4.6	11-15-63

^a PICOCURIES PER LITER

Table E-3
 QUALITY OF GROUND WATERS IN CALIFORNIA
 RADIOASSAY OF GROUND WATER
 1963

WELL NUMBER	DATE SAMPLED	GROSS ACTIVITY ^a	DATE ANALYZED
Delta-Mendota Area			
3S-7E-33C1-M	7-12-63	0 \pm 4.7	11-26-63
5S-8E-8G1-M	8- 5-63	0 \pm 4.6	11-26-63
5S-8E-27M1-M	8- 5-63	0 \pm 4.7	11-26-63
8S-9E-12E1-M	7-23-63	6.7 \pm 4.7	11-07-63
9S-9E-2L1-M	7-23-63	4.9 \pm 4.6	11-07-63
9S-9E-21F1-M	7-23-63	0 \pm 4.6	11-07-63
9S-10E-36R1-M	7-22-63	1.3 \pm 4.6	11-07-63
Madera Irrigation District			
13S-17E-5P1-M	8-15-63	61.6 \pm 5.6	9-18-63
West Chowchilla - Madera Area			
10S-13E-1A1-M	7-23-63	14.3 \pm 4.7	11-07-63
13S-15E-22J1-M	8-19-63	10.2 \pm 4.9	9-20-63
Fresno Irrigation District			
12S-20E-32J1-M	11-12-63	12.0 \pm 4.7	11-12-63
12S-21E-31P1-M	7-11-63	3.7 \pm 5.1	9-17-63
13S-17E-22B1-M	6-25-63	42.9 \pm 5.6	9-17-63
13S-17E-29L1-M	6-20-63	25.3 \pm 5.4	9-17-63
13S-19E-29E1-M	7-17-63	6.6 \pm 4.8	9-18-63
13S-20E-27J1-M	6-26-63	10.6 \pm 3.6	8-07-63
13S-21E-15M2-M	6-12-63	10.5 \pm 4.7	11-12-63
13S-22E-28C2-M	7-11-63	2.4 \pm 5.1	9-17-63
13S-23E-30J1-M	7-19-63	16.4 \pm 4.8	11-12-63

^a-PICOCURIES PER LITER

QUALITY OF GROUND WATERS IN CALIFORNIA
RADIOASSAY OF GROUND WATER
1963

WELL NUMBER	DATE SAMPLED	GROSS ACTIVITY ^a	DATE ANALYZED
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Fresno Irrigation District (Continued)

14S-17E-13H1-M	6-25-63	5.8 \pm 5.1	9-17-63
14S-18E-26N1-M	6-25-63	20.0 \pm 5.3	9-17-63
14S-19E-7M1-M	6-12-63	26.7 \pm 4.9	11-12-63
14S-19E-14P1-M	6-12-63	9.3 \pm 4.7	11-12-63
14S-19E-22R1-M	6-26-63	15.0 \pm 3.7	8-07-63
14S-20E-27C1-M	6-12-63	12.8 \pm 4.8	11-12-63
14S-21E-12P1-M	6-29-63	11.8 \pm 3.7	8-07-63

Fresno Slough Area

15S-17E-10R1-M	8-12-63	18.4 \pm 5.2	9-18-63
15S-17E-34A1-M	8-12-63	5.2 \pm 4.9	9-18-63
15S-18E-16G1-M	6-12-63	17.8 \pm 4.8	11-12-63
15S-19E-35L1-M	8-12-63	13.5 \pm 5.1	9-18-63
16S-17E-10G-M	8-26-63	68.5 \pm 5.8	9-20-63
16S-18E-10A1-M	8-12-63	15.4 \pm 5.0	9-19-63

Consolidated Irrigation District

15S-21E-24L1-M	8-12-63	21.4 \pm 5.2	9-18-63
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Lower Kings River Area

17S-18E-35Q1-M	8-26-63	0 \pm 4.8	9-20-63
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Orange Cove Irrigation District

15S-24E-23K1-M	8-23-63	0 \pm 4.8	9-18-63
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Table E-3
QUALITY OF GROUND WATERS IN CALIFORNIA
RADIOASSAY OF GROUND WATER
 1963

WELL NUMBER	DATE SAMPLED	GROSS ACTIVITY ^a	DATE ANALYZED
Mendota-Huron Area			
13S-14E-15B1-M	8-26-63	8.7 ± 4.9	9-20-63
13S-14E-34M1-M	8-26-63	5.6 ± 4.9	9-20-63
14S-13E-12N1-M	8-13-63	3.0 ± 4.9	9-18-63
14S-13E-25N1-M	8-13-63	6.6 ± 4.9	9-18-63
14S-14E-9M-M	8-13-63	21.2 ± 5.2	9-18-63
14S-14E-33N1-M	8-26-63	9.0 ± 4.7	11-12-63
14S-15E-28L1-M	8-13-63	7.5 ± 5.0	9-18-63
15S-14E-36Q2-M	8-13-63	0 ± 4.8	9-18-63
15S-15E-20N2-M	8-13-63	5.0 ± 5.0	9-18-63
15S-15E-25N1-M	8-13-63	9.0 ± 5.1	9-18-63
16S-14E-10Q1-M	8-13-63	3.3 ± 4.6	11-12-63
16S-15E-8N1-M	8-13-63	7.1 ± 4.8	9-19-63
16S-15E-25Q1-M	8-26-63	13.8 ± 5.0	9-20-63
16S-16E-9H2-M	8-13-63	3.6 ± 4.8	9-19-63
17S-16E-18E1-M	8-22-63	0 ± 4.7	9-20-63
17S-17E-23Q1-M	8-22-63	3.9 ± 4.6	11-12-63
17S-17E-27R1-M	8-22-63	2.1 ± 4.9	9-20-63
17S-17E-28R1-M	8-22-63	7.1 ± 4.8	9-20-63
18S-15E-24N1-M	8-22-63	4.5 ± 4.9	9-20-63
18S-17E-13N1-M	8-22-63	0 ± 4.9	9-20-63
18S-17E-30P1-M	8-22-63	4.8 ± 4.9	9-20-63
19S-17E-13N1-M	8-22-63	6.8 ± 4.8	9-20-63
19S-18E-23D2-M	8-22-63	3.1 ± 4.9	9-20-63

^a PICOCURIES PER LITER

Table E-3
QUALITY OF GROUND WATERS IN CALIFORNIA
RADIOASSAY OF GROUND WATER
1963

WELL NUMBER	DATE SAMPLED	GROSS ACTIVITY ^a	DATE ANALYZED
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Mendota-Huron Area (Continued)

19S-18E-28E1-M	8-22-63	0.5 \pm 4.9	9-20-63
20S-15E-25D2-M	8-23-63	3.3 \pm 4.6	11-12-63
20S-17E-11N1-M	8-23-63	3.5 \pm 4.9	9-20-63
20S-17E-36D1-M	8-23-63	5.1 \pm 4.8	9-20-63

San Luis Canal Company

10S-12E-6K1-M	7-18-63	0 \pm 4.6	11-07-63
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Stanislaus Plains

1N-10E-17G-M	8-14-63	0 \pm 4.8	11-26-63
1S-11E-36E1-M	6-28-63	0 \pm 4.7	11-26-63
3S-11E-9D1-M	8-14-63	0 \pm 4.7	11-26-63
3S-12E-26P1-M	6-28-63	15.7 \pm 5.0	11-26-63
5S-12E-6D1-M	6-28-63	0 \pm 4.6	11-26-63

Merced Bottoms

7S-10E-7M1-M	8-26-63	20.0 \pm 4.9	11- 7-63
8S-14E-24A1-M	8-19-63	3.0 \pm 4.7	11-15-63

North Madera Plains

9S-15E-24F1-M	8- 7-63	0 \pm 5.0	9-17-63
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Centerville Bottoms

14S-22E-25P1-M	8-12-63	2.6 \pm 5.0	9-18-63
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TABLE E-4

ANALYSES OF MISCELLANEOUS CONSTITUENTS

WELL LOCATION NUMBER	DATE	CONSTITUENTS IN PARTS PER MILLION (ppm)			
		ABS*	LITHIUM (Li)		

Turlock Irrigation District

4S/8E - 24A1-M 9/18/63 0.00

Delta Mendota Area

8S/9E - 2P-M 6/27/63 0.00

Lower Kings River Area

19S/19E - 25L-M 8/30/63 0.00

Orange Cove Irrigation District

15S/24E - 23KL-M 8/23/63 0.00

Kaweah Delta Water Conservation District

20S/26E - 3F1-M 8/28/63 0.00

Lindmore Irrigation District

20S/27E - 3LJ1-M 9/ 5/63 0.00

Shafter-Wasco Irrigation District

28S/26E - 30A1-M 6/20/63 0.0

Kern River Delta Area

30S/24E - 14H1-M 6/13/63 0.0

32S/27E - 16R1-M 3/13/63 0.0

* Alkyl-Benzene-Sulfonate (Detergents)

TABLE E-4

ANALYSES OF MISCELLANEOUS CONSTITUENTS

WELL LOCATION NUMBER	DATE	CONSTITUENTS IN PARTS PER MILLION (ppm)			
		ABS*	LITHIUM (Li)		

Edison-Maricopa Area

30S/29E - 20A1-M	6/11/63		0.0		
11N/20W - 8R1-S	7/ 2/63		0.0		
11N/20W - 25K1-S	7/ 2/63		0.0		
12N/21W - 33N1-S	6/12/63		0.0		

Avenal-McKittrick Area

26S/18E - 1A-M	8/ 8/63		<3.8 ¹		
27S/20E - 34G1-M	6/ 8/63		0.0		

Merced Bottoms

8S/13E - 16H-M	7/18/63	0.00			
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South Tulare Plains

21S/27E - 27F1-M	9/ 5/63	0.44			
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Kern Plains

26S/27E - 9G1-M	6/11/63		0.2		
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Centerville Bottoms

14S/22E - 25P1-M	8/12/63	0.00			
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* Alkyl-Benzene-Sulfonate (Detergents)

< Less than amount indicated.

1 Approximation due to interference in determination.



STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA

LOCATION OF CLIMATOLOGICAL STATIONS

JULY 1, 1962 TO JUNE 30, 1963

SCALE OF MILES



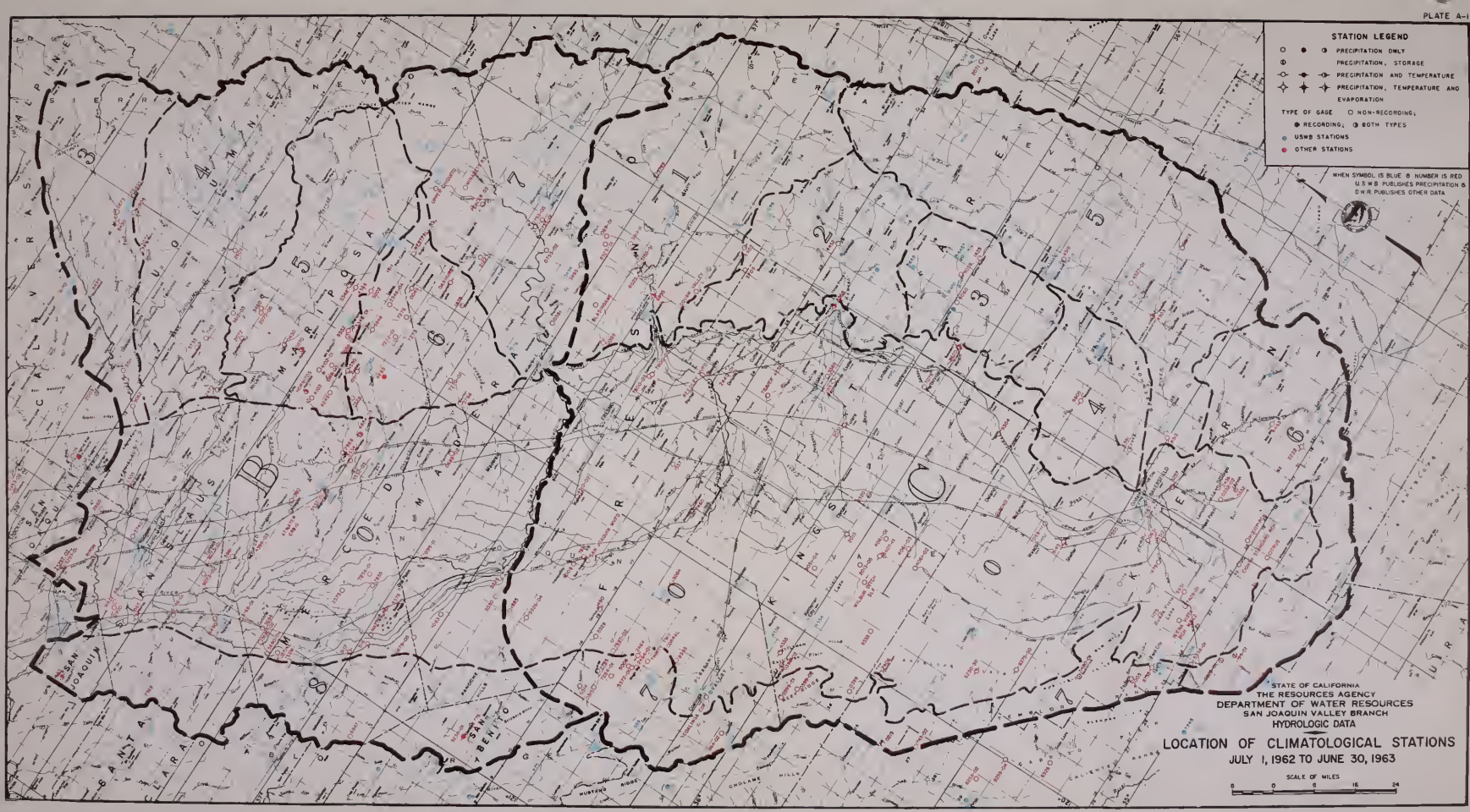
STATION LEGEND

- ● ○ PRECIPITATION ONLY
- ⊙ PRECIPITATION, STORAGE
- ⊙ PRECIPITATION AND TEMPERATURE
- ⊙ PRECIPITATION, TEMPERATURE AND EVAPORATION

TYPE OF GAGE ○ NON-RECORDING;
 ● RECORDING; ⊙ BOTH TYPES

● USWB STATIONS
 ● OTHER STATIONS

WHEN SYMBOL IS BLUE & NUMBER IS RED
 U.S.W.B. PUBLISHES PRECIPITATION &
 D.W.R. PUBLISHES OTHER DATA

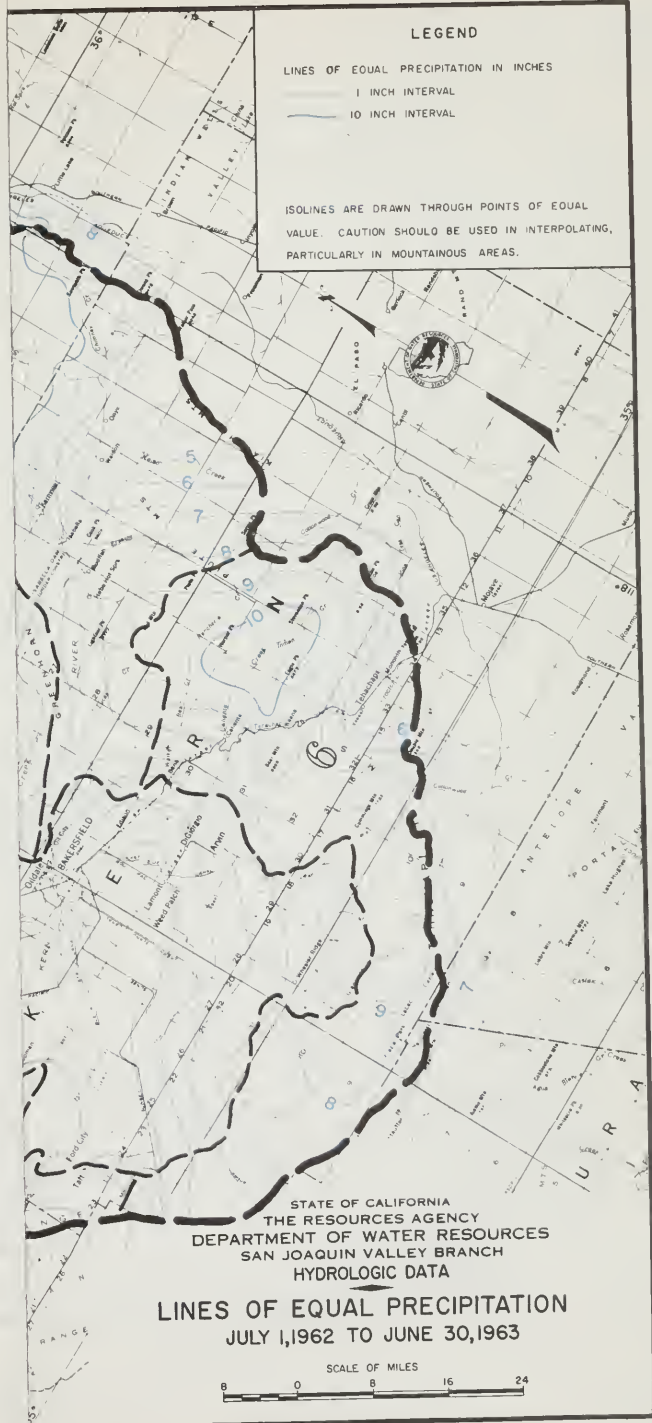


STATE OF CALIFORNIA
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 DEPARTMENT OF WATER RESOURCES
 SAN JOAQUIN VALLEY BRANCH
 HYDROLOGIC DATA

LOCATION OF CLIMATOLOGICAL STATIONS
 JULY 1, 1962 TO JUNE 30, 1963

SCALE OF MILES
 0 10 20





LEGEND

LINES OF EQUAL PRECIPITATION IN INCHES

1 INCH INTERVAL

10 INCH INTERVAL

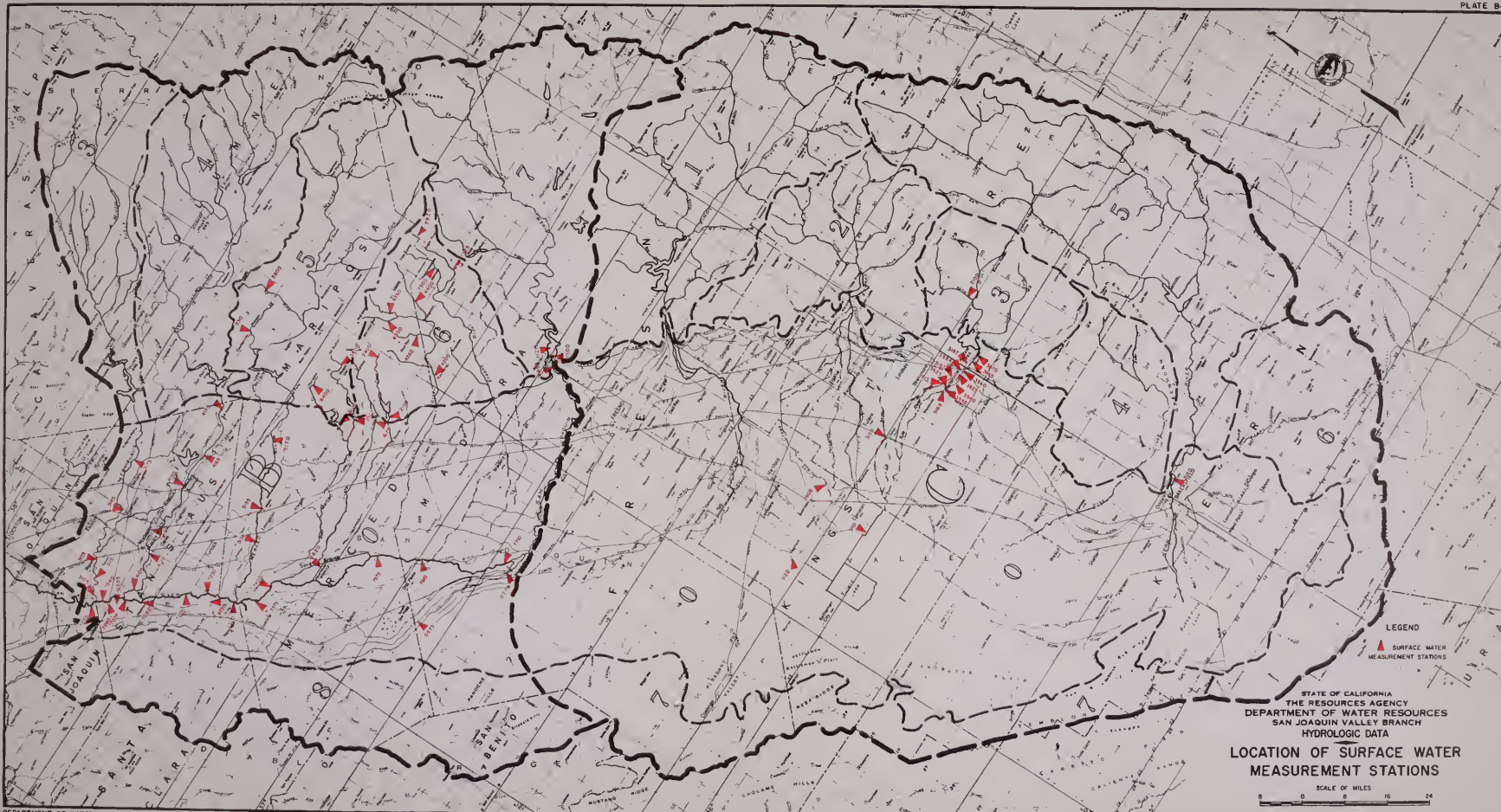
ISOLINES ARE DRAWN THROUGH POINTS OF EQUAL
VALUE. CAUTION SHOULD BE USED IN INTERPOLATING,
PARTICULARLY IN MOUNTAINOUS AREAS

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA

LINES OF EQUAL PRECIPITATION
JULY 1, 1962 TO JUNE 30, 1963

SCALE OF MILES





LEGEND

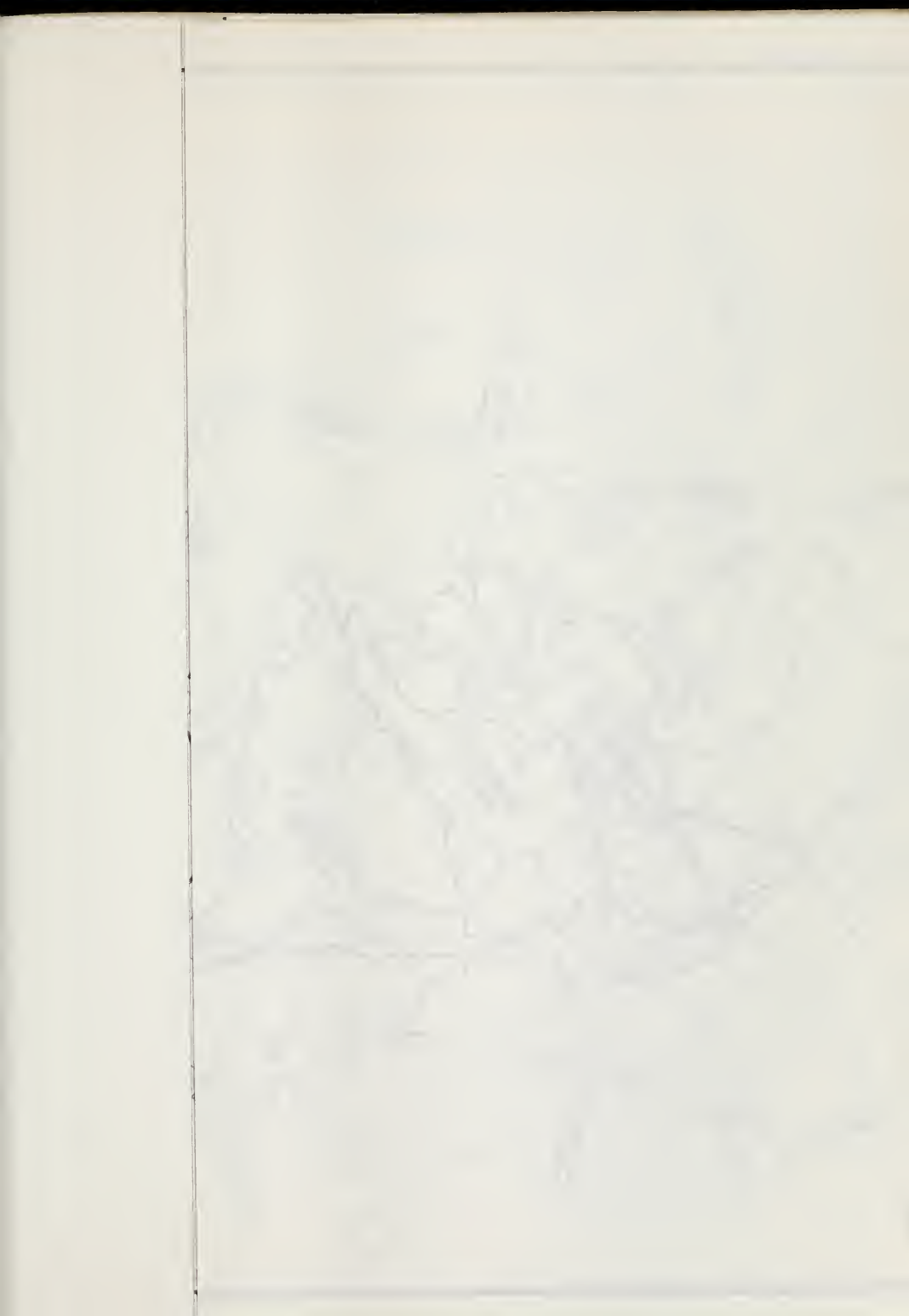
▲ SURFACE WATER MEASUREMENT STATIONS

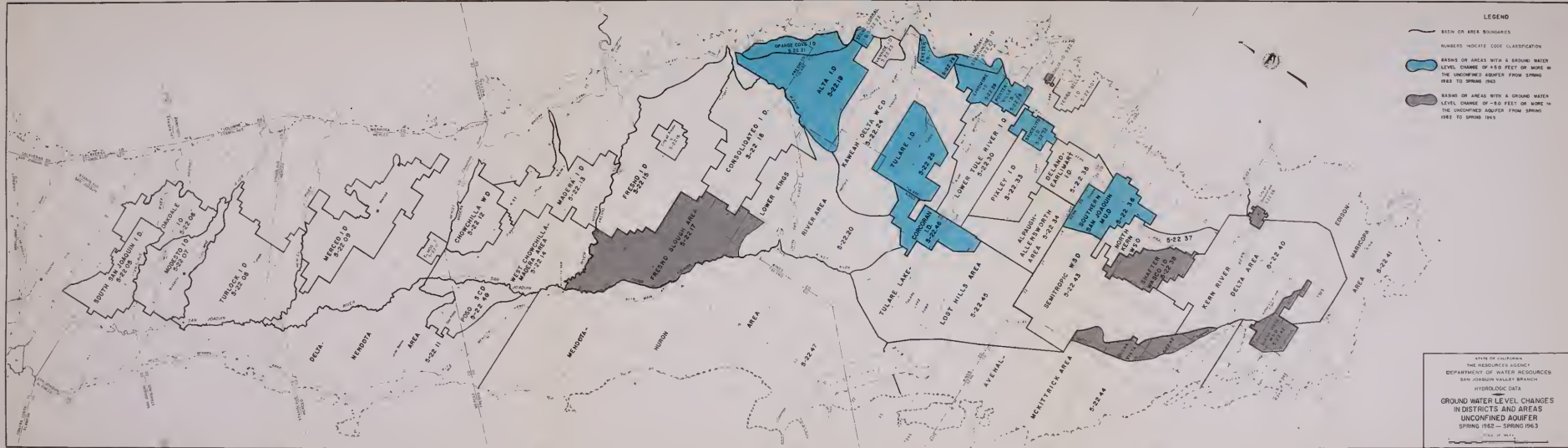
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA

LOCATION OF SURFACE WATER MEASUREMENT STATIONS

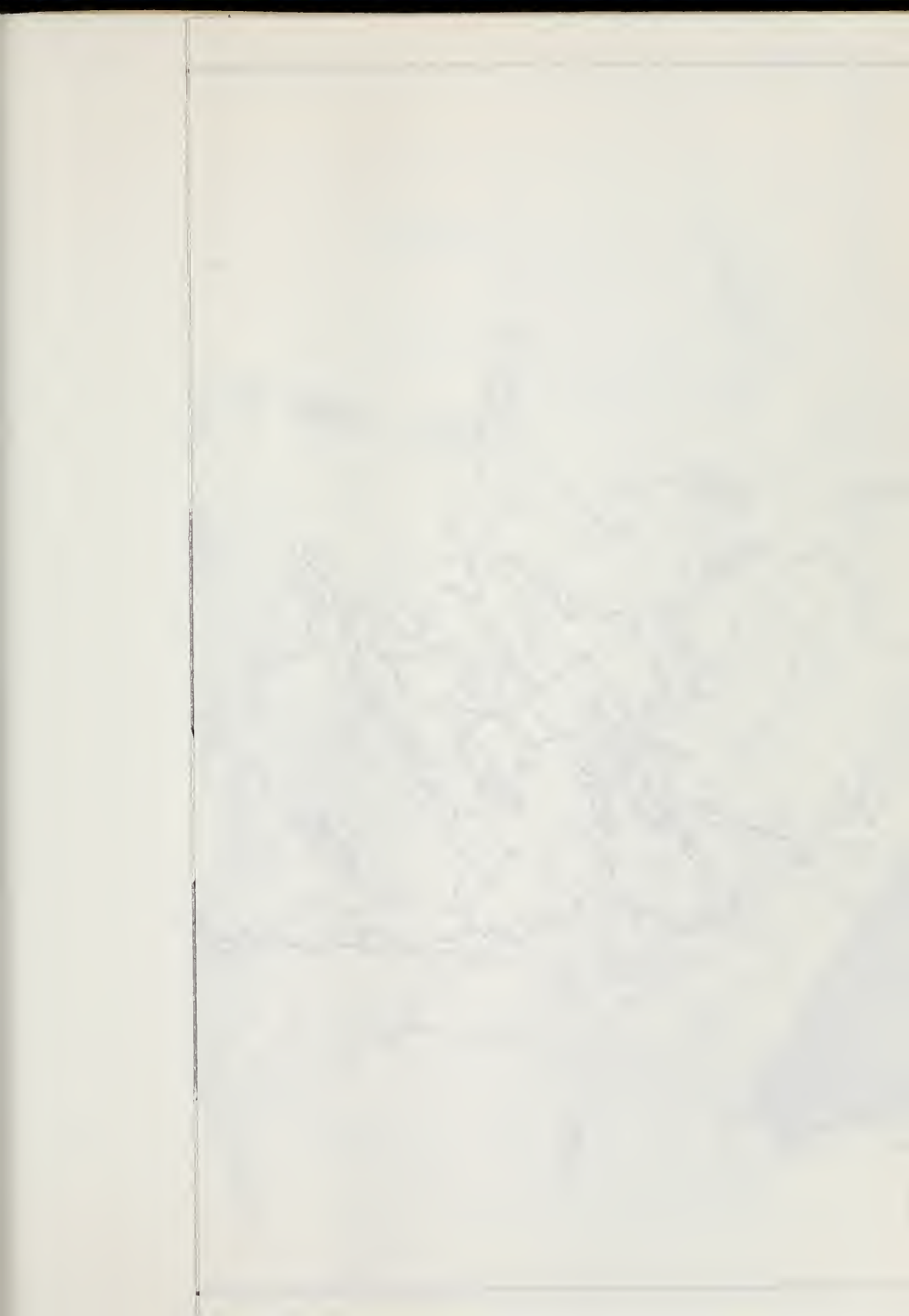
SCALE OF MILES
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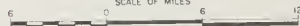
- WELLS MEASURED MONTHLY
- WELLS MEASURED ANNUALLY AND SEMI-ANNUALLY
- ▲ GROUND WATER QUALITY MONITORING WELLS



HYDROLOGIC DATA

LOCATION OF
SELECTED OBSERVATION WELLS
1962-1963

SCALE OF MILES









- LEGEND
- WELLS MEASURED MONTHLY
 - WELLS MEASURED ANNUALLY AND SEMI-ANNUALLY
 - △ GROUND WATER QUALITY MONITORING WELLS

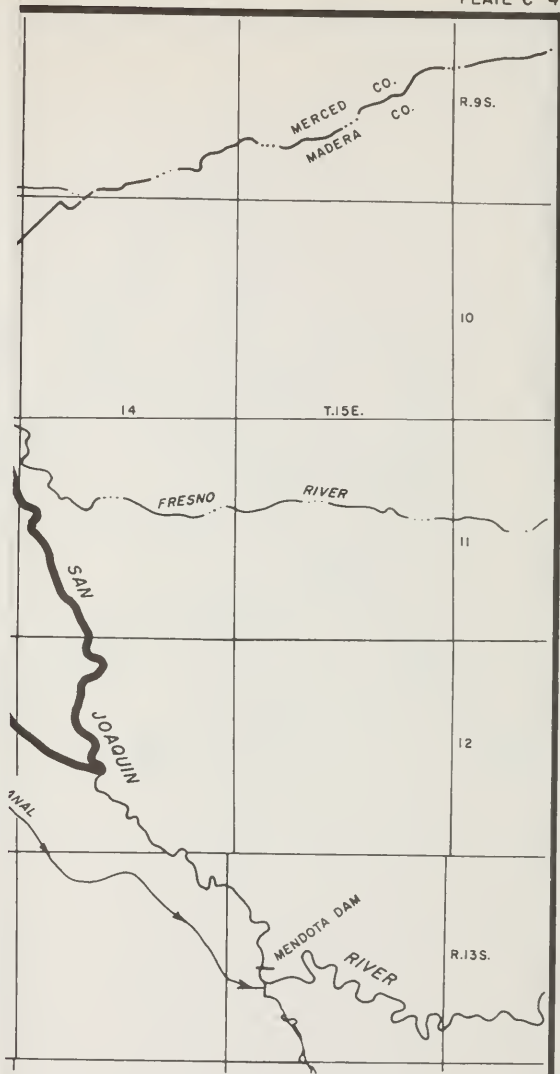
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA

LOCATION OF
SELECTED OBSERVATION WELLS
1962-1963

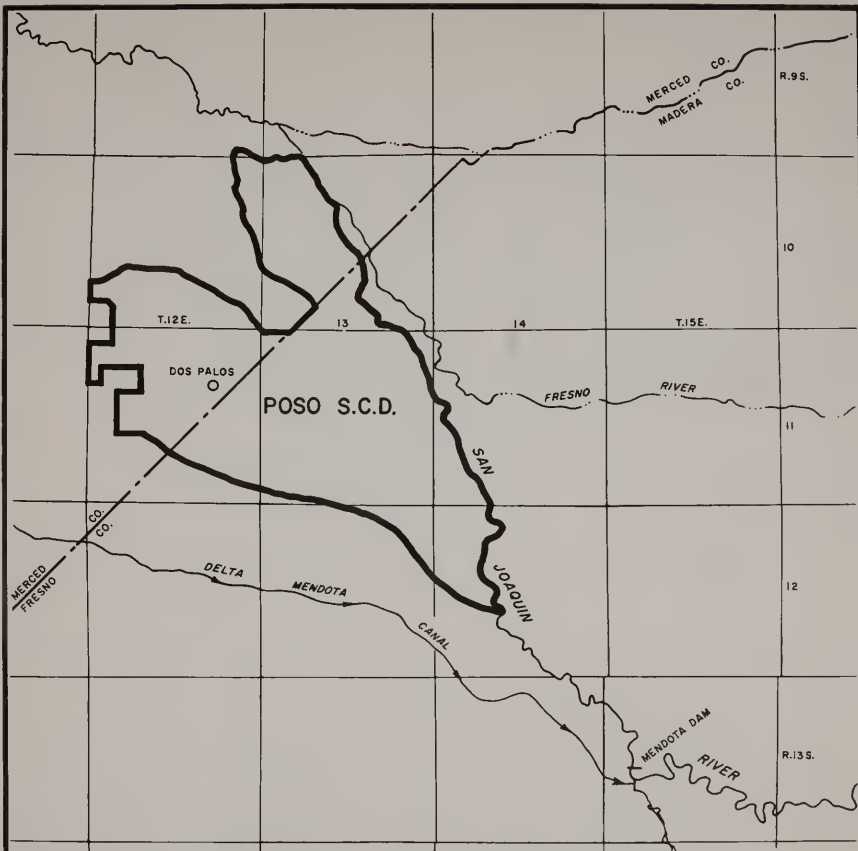
SCALE OF MILES
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STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF WATER RESOURCES
 SAN JOAQUIN VALLEY BRANCH
**POSO SOIL CONSERVATION DISTRICT
 COOPERATIVE PROGRAM AREA**

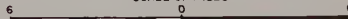




 **LEGEND**
DISTRICT BOUNDARY

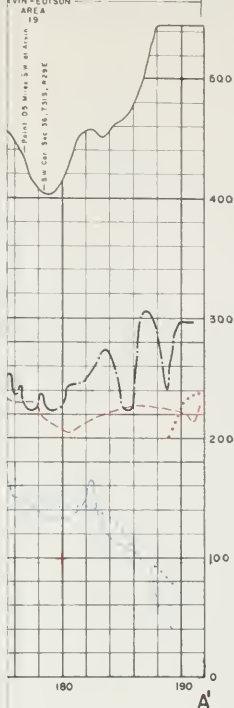


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
**POSO SOIL CONSERVATION DISTRICT
COOPERATIVE PROGRAM AREA**

SCALE OF MILES




WIN-EDISON AREA 19



HISTORIC GROUND WATER AREAS

- 1 MADERA
- 2 FRESNO
- 3 CONSOLIDATED
- 4 FRESNO(2) CONSOLIDATED(3)
AND OUTSIDE AREA (4a, 4b, & 4c)
- 5 CENTERVILLE BOTTOMS
- 6 ALTA
- 7 IVANHOE
- 8 OUTSIDE IVANHOE
- 9 MILL CREEK
- 10 TULARE
- 11 ELK BAYOU
- 12 LINDSAY-EXETER
- 13 TULE RIVER
- 14 LOWER OER CREEK
- 15 MIDDLE DEER CREEK
- 16 DELANO - EARLIMART
- 17 Mc FARLAND - SHAFTER
- 18 ROSEDALE
- 19 ARVIN - EDISON

LEGEND

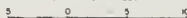
- GROUND WATER AREA BOUNDARIES
- GROUND WATER LEVEL FALL 1921
- - - GROUND WATER LEVEL FALL 1951
- ... GROUND WATER LEVEL SPRING 1962, UNCONFINED AQUIFER
- . . . GROUND WATER LEVEL SPRING 1962, PRESSURE SURFACE
- - - GROUND WATER LEVEL SPRING 1963, UNCONFINED AQUIFER
- . . . GROUND WATER LEVEL SPRING 1963, PRESSURE SURFACE

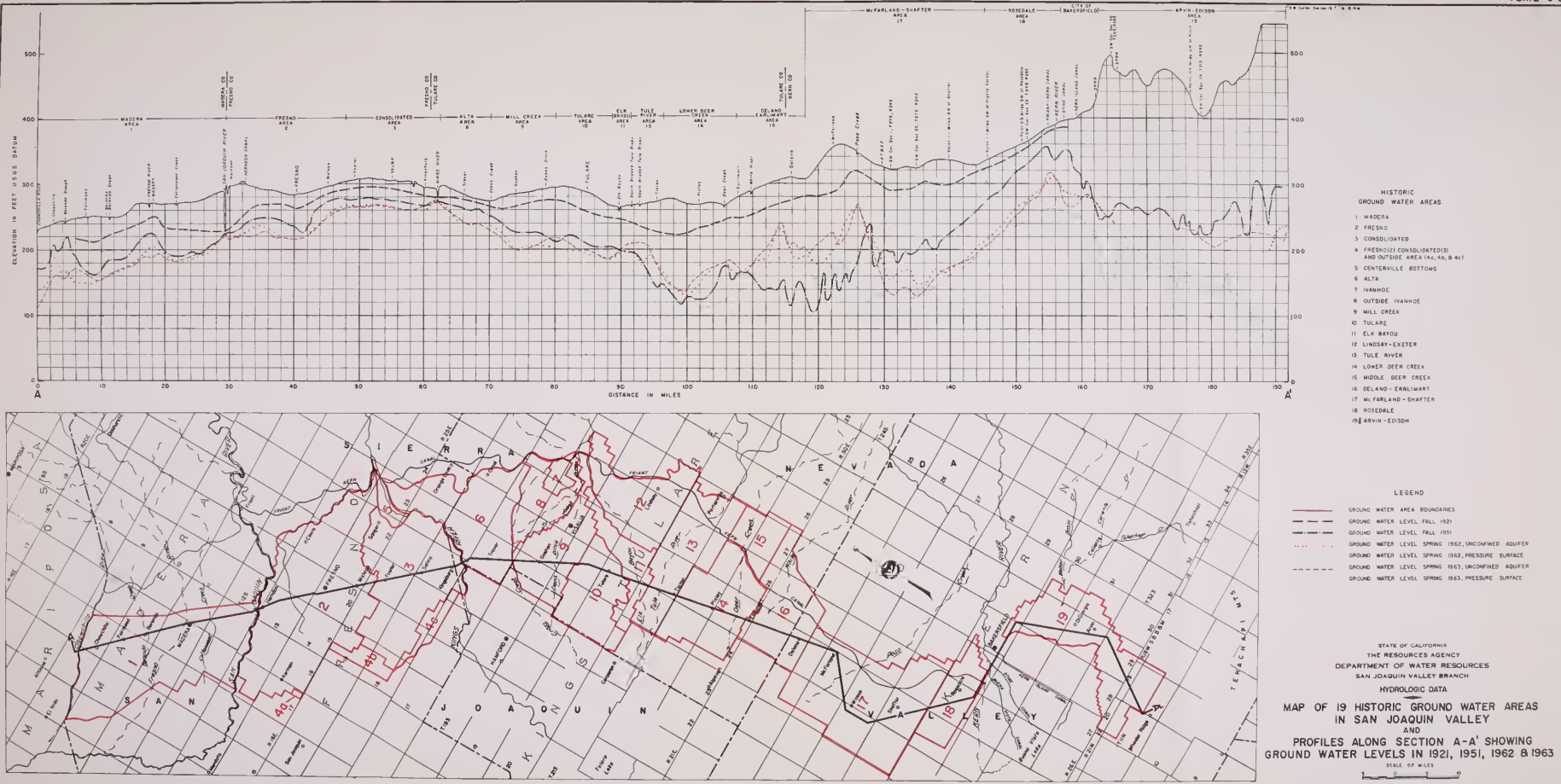
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA

MAP OF 19 HISTORIC GROUND WATER AREAS
IN SAN JOAQUIN VALLEY
AND
PROFILES ALONG SECTION A-A' SHOWING
GROUND WATER LEVELS IN 1921, 1951, 1962 & 1963

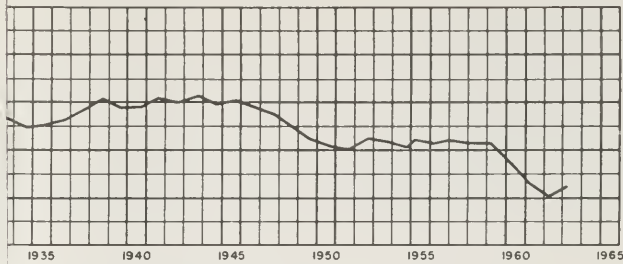
SCALE OF MILES



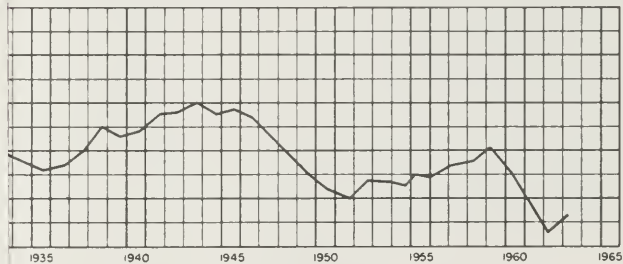




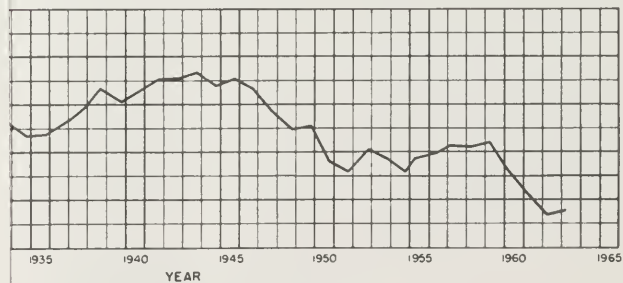
MILL CREEK GROUND WATER AREA
 AREA 12825 SQUARE MILES
 AVERAGE GROUND SURFACE ELEVATION 305'



TULARE GROUND WATER AREA
 AREA 12107 SQUARE MILES
 AVERAGE GROUND SURFACE ELEVATION 363'



ELK BAYOU GROUND WATER AREA
 AREA 676 SQUARE MILES
 AVERAGE GROUND SURFACE ELEVATION 295'



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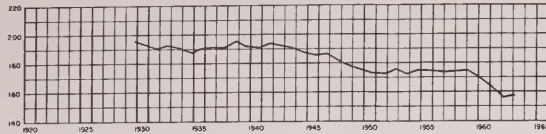
STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF WATER RESOURCES
 SAN JOAQUIN VALLEY BRANCH
 HYDROLOGIC DATA 1962-1963

FLUCTUATION OF AVERAGE WATER LEVEL,
 1921 TO 1963 IN 19 HISTORIC GROUND WATER AREAS
 IN SAN JOAQUIN VALLEY

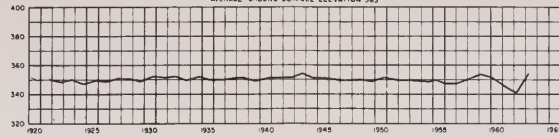
WATER SURFACE ELEVATION

WATER SURFACE ELEVATION

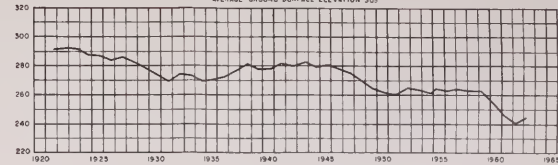
MADERA GROUND WATER AREA
AREA 342.6 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 730'



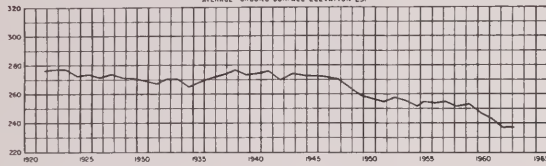
CENTERVILLE BOTTOMS GROUND WATER AREA
AREA 18.15 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 363'



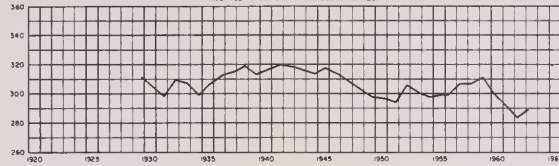
MILL CREEK GROUND WATER AREA
AREA 128.25 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 300'



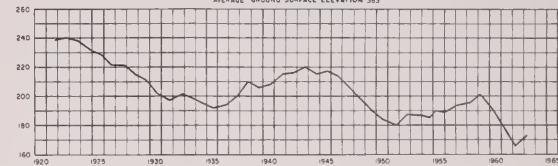
FRESNO GROUND WATER AREA
AREA 804.0 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 291'



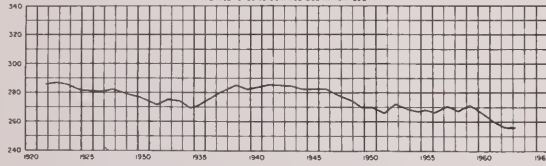
ALTA GROUND WATER AREA
AREA 190.93 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 331'



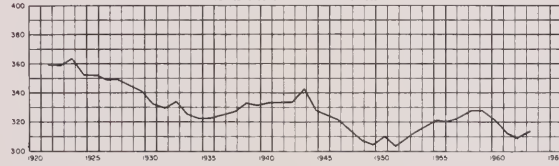
TULARE GROUND WATER AREA
AREA 121.07 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 363'



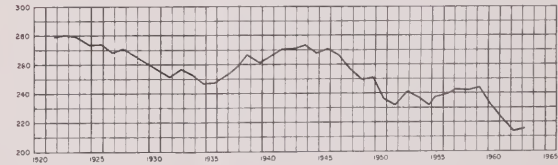
CONSOLIDATED GROUND WATER AREA
AREA 243.0 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 298'



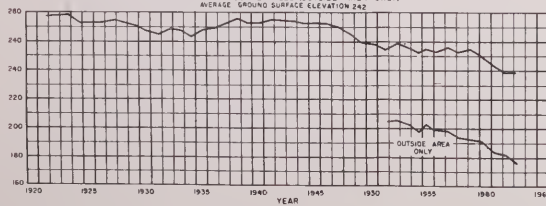
IVANHOE GROUND WATER AREA
AREA 173.7 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 383'



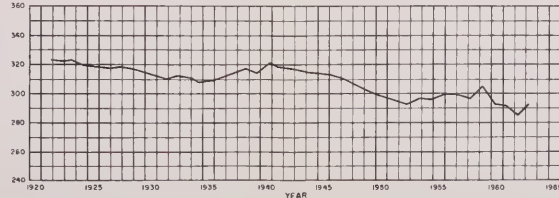
ELK BAYOU GROUND WATER AREA
AREA 67.6 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 295'



FRESNO-CONSOLIDATED OUTSIDE GROUND WATER AREA
AREA 700.11 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 288'
AREA 53.11 SQUARE MILES OUTSIDE AREA ONLY
AVERAGE GROUND SURFACE ELEVATION 242'



OUTSIDE IVANHOE GROUND WATER AREA
AREA 76.65 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 345'



NOTE SEE PLATE C-6 FOR GROUND WATER AREA LOCATION

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA 1962-1963

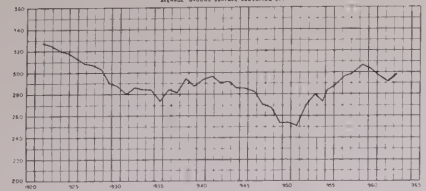
FLUCTUATION OF AVERAGE WATER LEVEL,
1921 TO 1963 IN 19 HISTORIC GROUND WATER AREAS
IN SAN JOAQUIN VALLEY



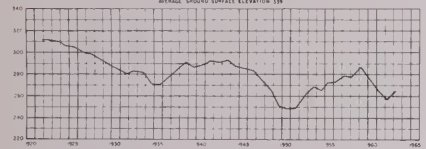
ELEVATION IN FEET - USGS DATUM

ELEVATION IN FEET - USGS DATUM

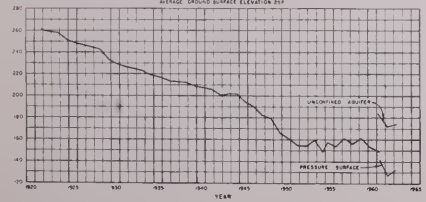
LINDSAY-EXETER GROUND WATER AREA
AREA 13643 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 377



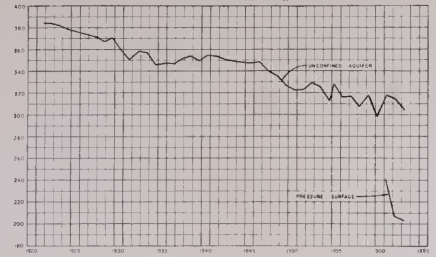
TULE RIVER GROUND WATER AREA
AREA 1566 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 339



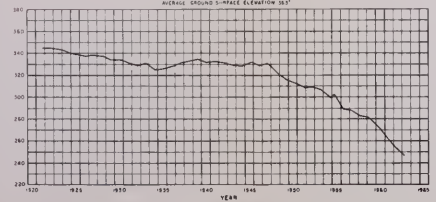
LOWER DEER CREEK GROUND WATER AREA
AREA 1622 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 214



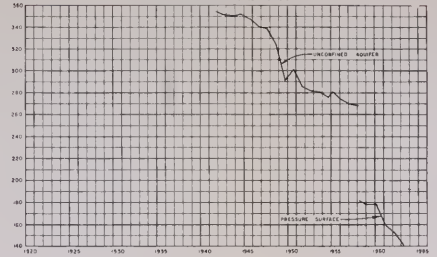
MIDDLE DEER CREEK GROUND WATER AREA
AREA 3478 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 480



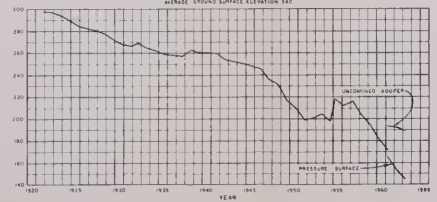
ROSEDALE GROUND WATER AREA
AREA 1944 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 353



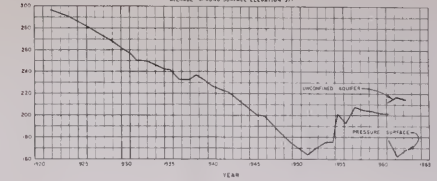
ARVIN-EDISON GROUND WATER AREA
AREA 20518 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 343



Mc FARLAND-SHAFTER GROUND WATER AREA
AREA 3060 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 340



DELANO-EARLIAMT GROUND WATER AREA
AREA 1400 SQUARE MILES
AVERAGE GROUND SURFACE ELEVATION 371



NOTE SEE PLATE C-6 FOR GROUND WATER AREA LOCATION

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA 1962-1963

FLUCTUATION OF AVERAGE WATER LEVEL,
1921 TO 1963 IN 19 HISTORIC GROUND WATER AREAS
IN SAN JOAQUIN VALLEY





1965

LEGEND

- CONNECTS MEASUREMENTS MADE AT INTERVALS
OF ONE YEAR OR MORE
- GROUND LEVEL

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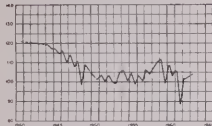
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA 1962-1963

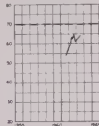
FLUCTUATION OF WATER LEVEL
IN SELECTED WELLS IN SAN JOAQUIN VALLEY

ELEVATION IN FEET PLUS DATUM

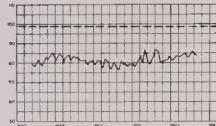
SAN JOAQUIN VALLEY (5-22 00)
OAKDALE IRRIGATION DISTRICT (5-22 08)
WELL 25/10E-33J, M.O.B.M.
GROUND SURFACE ELEVATION 187



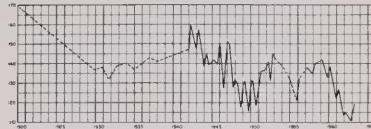
SAN JOAQUIN VALLEY (5-22 00)
TURLOCK IRRIGATION DISTRICT (5-22 08)
WELL 55/9C-30J, M.O.B.M.
GROUND SURFACE ELEVATION 70



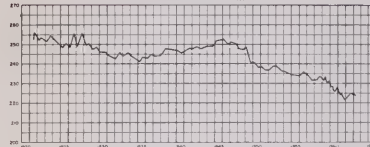
SAN JOAQUIN VALLEY (5-22 00)
DELTA-MENDOTA AREA-SHALLOW ZONE (5-22 11)
WELL 55/9E-18K, M.O.B.M.
GROUND SURFACE ELEVATION 85



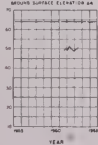
SAN JOAQUIN VALLEY (5-22 00)
CHOWCHILLA WATER DISTRICT (5-22 12)
WELL 105/10E-23K, M.O.B.M.
GROUND SURFACE ELEVATION 104



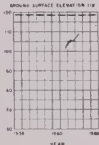
SAN JOAQUIN VALLEY (5-22 00)
FRESNO IRRIGATION DISTRICT (5-22 15)
WELL 135/9E-10J, M.O.B.M.
GROUND SURFACE ELEVATION 288



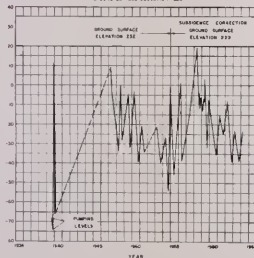
SAN JOAQUIN VALLEY (5-22 00)
MODESTO IRRIGATION DISTRICT (5-22 07)
WELL 95/9E-22C, M.O.B.M.
GROUND SURFACE ELEVATION 84



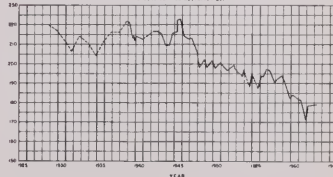
SAN JOAQUIN VALLEY (5-22 00)
MERCED IRRIGATION DISTRICT (5-22 09)
WELL 75/17E-11J, M.O.B.M.
GROUND SURFACE ELEVATION 119



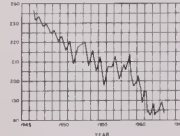
SAN JOAQUIN VALLEY (5-22 00)
DELTA-MENDOTA AREA-DEEP ZONE (5-22 11)
WELL 155/10E-18K, M.O.B.M.
GROUND SURFACE ELEVATION 828



SAN JOAQUIN VALLEY (5-22 00)
MADERA IRRIGATION DISTRICT (5-22 13)
WELL 115/17E-17C, M.O.B.M.
GROUND SURFACE ELEVATION 251



SAN JOAQUIN VALLEY (5-22 00)
CONSOLIDATED IRRIGATION DISTRICT (5-22 18)
WELL 185/20E-22K, M.O.B.M.
GROUND SURFACE ELEVATION 287



LEGEND
--- CORRECTIONS MEASUREMENTS MADE AT INTERVALS OF ONE YEAR OR MORE
— GROUND LEVEL

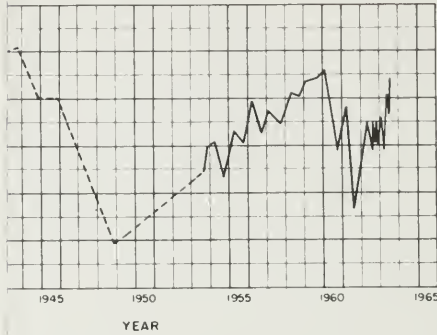
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA 1962-1963

FLUCTUATION OF WATER LEVEL
IN SELECTED WELLS IN SAN JOAQUIN VALLEY



SAN JOAQUIN VALLEY (5-22.00)
 CENTER IRRIGATION DISTRICT (5-22.26)
 WELL 185/27E-29D1, M.Q.B.B.M.
 GROUND SURFACE ELEVATION 446'



LEGEND

- CONNECTS MEASUREMENTS MADE AT INTERVALS OF ONE YEAR OR MORE
- GROUND LEVEL

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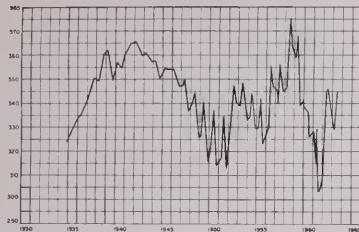
STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF WATER RESOURCES
 SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA 1962-1963

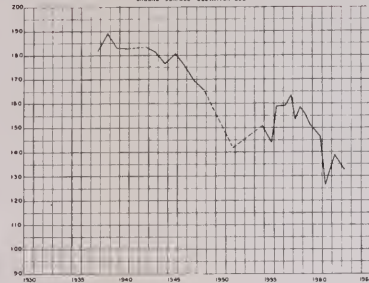
FLUCTUATION OF WATER LEVEL
 SELECTED WELLS IN SAN JOAQUIN VALLEY

ELEVATION IN FEET - U.S.G.S. DATUM

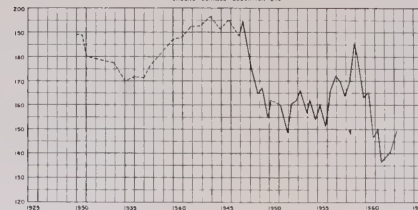
SAN JOAQUIN VALLEY (5-22.00)
ALTA IRRIGATION DISTRICT (5-22.19)
WELL 185/24E-220' M.D.B.M.
GROUND SURFACE ELEVATION 348'



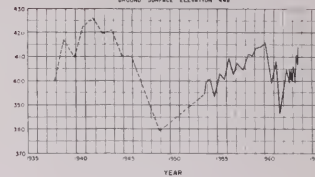
SAN JOAQUIN VALLEY (5-22.00)
FRESNO SLOUGH AREA (5-22.17)
WELL 175/10E-23A2' M.D.B.M.
GROUND SURFACE ELEVATION 200'



SAN JOAQUIN VALLEY (5-22.00)
TULARE IRRIGATION DISTRICT (5-22.25)
WELL 205/23E-9J1' M.D.B.M.
GROUND SURFACE ELEVATION 248'



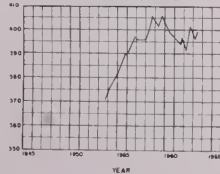
SAN JOAQUIN VALLEY (5-22.00)
EXETER IRRIGATION DISTRICT (5-22.26)
WELL 185/27E-250L' M.D.B.M.
GROUND SURFACE ELEVATION 406'



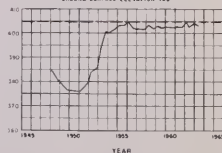
LEGEND

--- CONNECTS MEASUREMENTS MADE AT INTERVALS
OF ONE YEAR OR MORE
— GROUND LEVEL

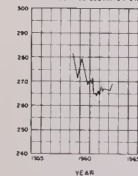
SAN JOAQUIN VALLEY (5-22.00)
ORANGE COVE IRRIGATION DISTRICT (5-22.21)
WELL 165/25E-4C2' M.D.B.M.
GROUND SURFACE ELEVATION 405'



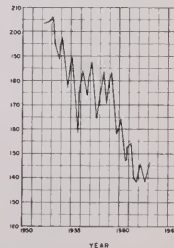
SAN JOAQUIN VALLEY (5-22.00)
STONE CORRAL IRRIGATION DISTRICT (5-22.22)
WELL 165/26E-32R' M.D.B.M.
GROUND SURFACE ELEVATION 405'



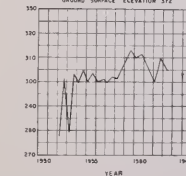
SAN JOAQUIN VALLEY (5-22.00)
IVANHOE IRRIGATION DISTRICT (5-22.23)
WELL 175/25E-35M' M.D.B.M.
GROUND SURFACE ELEVATION 349'



SAN JOAQUIN VALLEY (5-22.00)
KAWEAH DELTA WATER CONSERVATION DISTRICT (5-22.24)
WELL 195/22E-19A2' M.D.B.M.
GROUND SURFACE ELEVATION 235'



SAN JOAQUIN VALLEY (5-22.00)
LINDSAY-STRAITHMORE IRRIGATION DISTRICT (5-22.27)
WELL 205/27E-60H' M.D.B.M.
GROUND SURFACE ELEVATION 372'

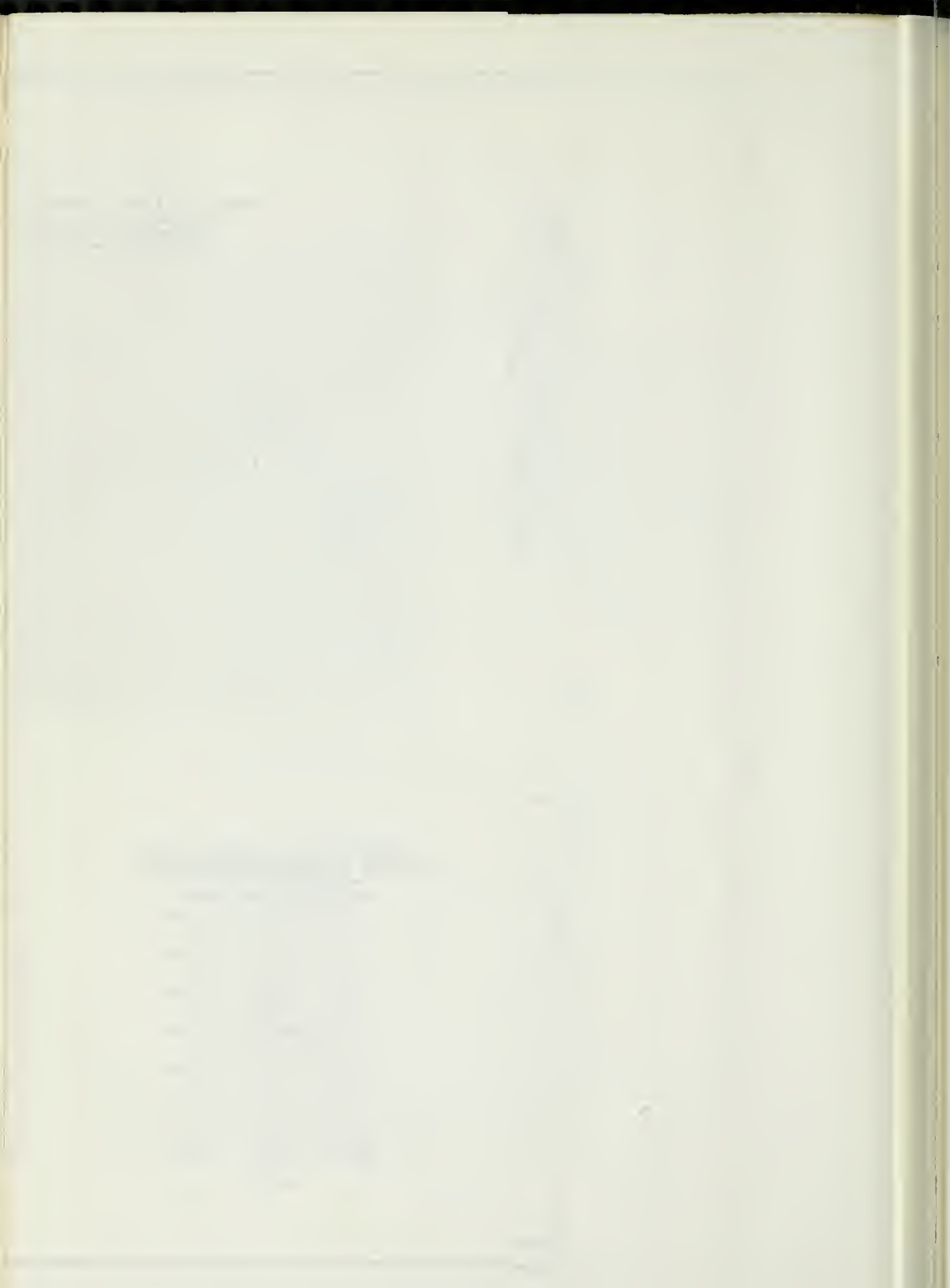


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA 1962-1963

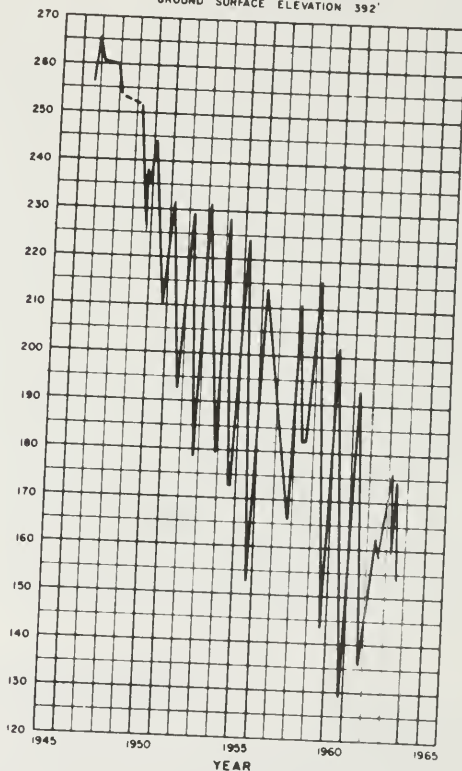
FLUCTUATION OF WATER LEVEL
IN SELECTED WELLS IN SAN JOAQUIN VALLEY

WATER LEVEL DATUM



22.36)

SAN JOAQUIN VALLEY (5-22.00)
NORTH KERN WATER STORAGE DISTRICT (5-22.37)
WELL 27S/25E-22A1, M.D.B.M.
GROUND SURFACE ELEVATION 392'



ELEVATION IN FEET - U.S.G.S. DATUM

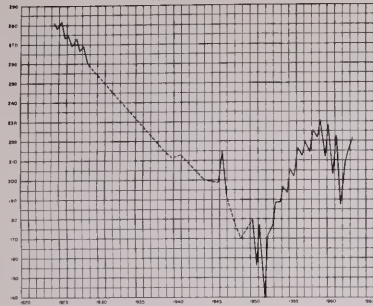
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DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH

HYDROLOGIC DATA 1962-1963

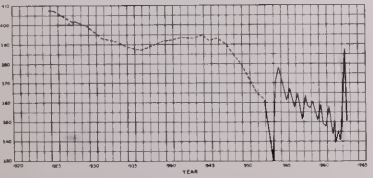
FLUCTUATION OF WATER LEVEL
IN SELECTED WELLS IN SAN JOAQUIN VALLEY

ELEVATION IN FEET USGS DATUM

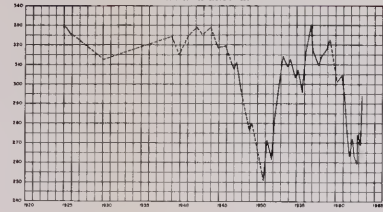
SAN JOAQUIN VALLEY (5-22.00)
LINDMORE IRRIGATION DISTRICT (5-22.28)
WELL 208/24C-22C, M.D.B.W.
GROUND SURFACE ELEVATION 342



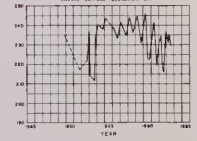
SAN JOAQUIN VALLEY (5-22.00)
PORTERVILLE IRRIGATION DISTRICT (5-22.29)
WELL 225/27E-10N, M.D.B.W.
GROUND SURFACE ELEVATION 487



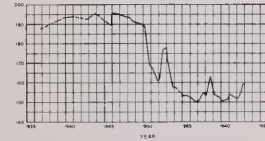
SAN JOAQUIN VALLEY (5-22.00)
LOWER TULE RIVER IRRIGATION DISTRICT (5-22.30)
WELL 218/28E-10H, M.D.B.W.
GROUND SURFACE ELEVATION 355



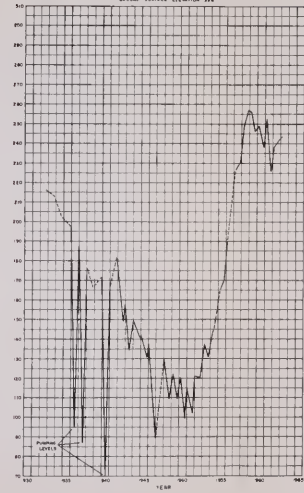
SAN JOAQUIN VALLEY (5-22.00)
SAUCELITO IRRIGATION DISTRICT (5-22.32)
WELL 225/28E-15J, M.D.B.W.
GROUND SURFACE ELEVATION 371



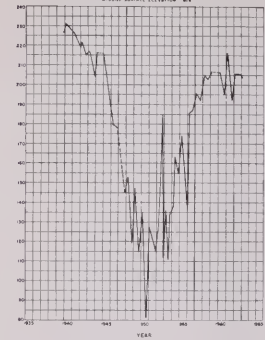
SAN JOAQUIN VALLEY (5-22.00)
ALPAUGH-ALLENSWORTH AREA (5-22.34)
WELL 245/23E-2102, M.D.B.W.
GROUND SURFACE ELEVATION 206



SAN JOAQUIN VALLEY (5-22.00)
DELANO-EARLMART IRRIGATION DISTRICT (5-22.35)
WELL 245/28E-501, M.D.B.W.
GROUND SURFACE ELEVATION 355

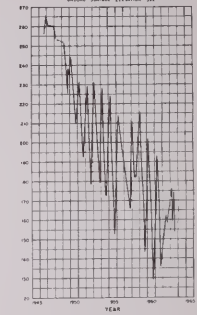


SAN JOAQUIN VALLEY (5-22.00)
SOUTHERN SAN JOAQUIN MUNICIPAL UTILITY DISTRICT (5-22.36)
WELL 255/28E-2842, M.D.B.W.
GROUND SURFACE ELEVATION 415



LEGEND
----- CONNECTS MEASUREMENTS MADE AT INTERVALS
OF ONE YEAR OR MORE
——— GROUND LEVEL

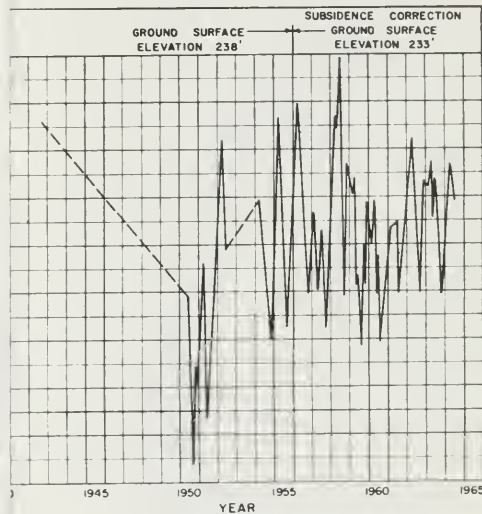
SAN JOAQUIN VALLEY (5-22.00)
NORTH KERN WATER STORAGE DISTRICT (5-22.37)
WELL 275/23E-224, M.D.B.W.
GROUND SURFACE ELEVATION 357



ELEVATION IN FEET USGS DATUM



SAN JOAQUIN VALLEY (5-22.00)
MENDOTA-HURON AREA (5-22.47)
 WELL 17S/16E-24RI, M.D.B.M.
 GROUND SURFACE ELEVATION 238'



LEGEND

- CONNECTS MEASUREMENTS MADE AT INTERVALS OF ONE YEAR OR MORE
- GROUND LEVEL

STATE OF CALIFORNIA
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 DEPARTMENT OF WATER RESOURCES
 SAN JOAQUIN VALLEY BRANCH

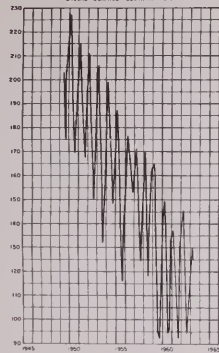
HYDROLOGIC DATA 1962-1963

FLUCTUATION OF WATER LEVEL
IN SELECTED WELLS IN SAN JOAQUIN VALLEY

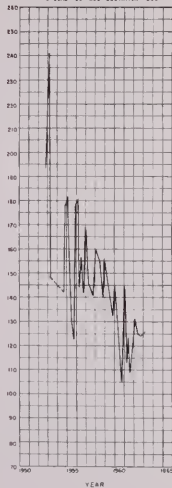
ELEVATION IN FEET - U.S.G.S. DATUM

ELEVATION IN FEET - USGS DATUM

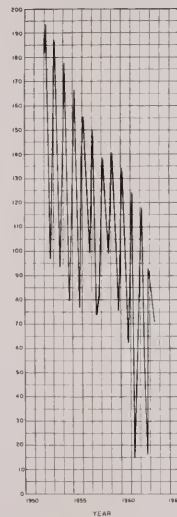
SAN JOAQUIN VALLEY (5-22.00)
SNAFTEN-WASCO IRRIGATION DISTRICT (5-22.38)
WELL 275/24E-350, M.O.B.M.
GROUND SURFACE ELEVATION 34



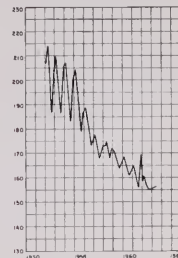
SAN JOAQUIN VALLEY (5-22.00)
EDISON-MARICOPA AREA (5-22.41)
WELL 12W/20W-31R, S.O.B.M.
GROUND SURFACE ELEVATION 543



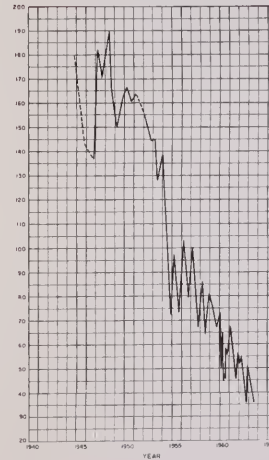
SAN JOAQUIN VALLEY (5-22.00)
SEMITROPIC WATER STORAGE DISTRICT-DEEP ZONE (5-22.43)
WELL 275/23E-11R, M.O.B.M.
GROUND SURFACE ELEVATION 247



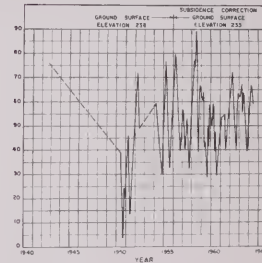
SAN JOAQUIN VALLEY (5-22.00)
SEMITROPIC WATER STORAGE DISTRICT-SHALLOW ZONE (5-22.43)
WELL 275/23E-11R, M.O.B.M.
GROUND SURFACE ELEVATION 247



SAN JOAQUIN VALLEY (5-22.00)
MENDOTA-HURON AREA (5-22.47)
WELL 215/18E-28M2, M.O.B.M.
GROUND SURFACE ELEVATION 340



SAN JOAQUIN VALLEY (5-22.00)
MENDOTA-HURON AREA (5-22.47)
WELL 175/16E-24R1, M.O.B.M.
GROUND SURFACE ELEVATION 234



LEGEND

- CONNECTS MEASUREMENTS MADE AT INTERVALS OF ONE YEAR OR MORE
— GROUND LEVEL

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA 1962-1963
FLUCTUATION OF WATER LEVEL
IN SELECTED WELLS IN SAN JOAQUIN VALLEY

ELEVATION IN FEET - USGS DATUM





EXPLANATION

UNCONFINED WATER-TABLE CONTOUR

—130— Lines of equal elevation of water in unconfined aquifers, dashed where inferred, contour interval 10 and 80 feet

PRESSURE SURFACE CONTOUR

—250— Lines of equal elevation of Pressure Surface in aquifers that are confined or semi-confined, contours are dashed where inferred, contour interval 25 feet

BARRIER

..... Ground water barrier

NOTE Ground water contours in the Los Banos-Kettleman City area were drawn by the U.S.S. Water level measurements were made during December 1962. Other areas were measured from the latter part of January through March 1963.

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SAN JOAQUIN VALLEY BRANCH

LINE OF EQUAL ELEVATION OF WATER IN WELLS

SAN JOAQUIN VALLEY

SPRING 1963

SCALE OF MILES

0 1 2 3 4 5



EXPLANATION

UNCORRECTED WATER TABLE CONTOUR
Line of equal elevation of water in uncorrected wells. These lines show the general trend of the water table but are not suitable for detailed engineering work.

CORRECTED WATER TABLE CONTOUR
Line of equal elevation of water in corrected wells. These lines are suitable for detailed engineering work and show the general trend of the water table.

NOTES:
1. These maps were compiled from the 1:25,000 scale topographic maps of the San Joaquin Valley, California, published by the U.S. Geological Survey, 1907-1910. The maps were corrected to show the water table in 1963.

STATE OF CALIFORNIA
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DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY DIVISION
**LINES OF EQUAL ELEVATION
OF WATER IN WELLS**
SAN JOAQUIN VALLEY
SPRING 1963
SCALE IN FEET





EXPLANATION

UNCONTINUED WATER-TABLE CONTOUR
 Line of equal elevation of water in unconfined aquifers, marked when interval, contour interval 10 and 50 feet

PRESSURE SURFACE CONTOUR
 Line of equal elevation of Pressure Surface in aquifers that are confined or semi-confined, contours are marked when interval, contour interval 25 feet

BARRIER
 Ground water barrier

NOTE: Ground water contours in the San Joaquin Valley are shown by the U.S.D.C. (United States Department of the Interior) maps made during December 1962. Other areas were modified from the latter part of January through March 1963.

STATE OF CALIFORNIA
 THE RESOURCES AGENCY OF CALIFORNIA
 DEPARTMENT OF WATER RESOURCES
 SAN JOAQUIN VALLEY BRANCH

**LINES OF EQUAL ELEVATION
 OF WATER IN WELLS**

SAN JOAQUIN VALLEY
 SPRING 1963

SCALE OF MILES
 0 1 2 3 4



Big Creek
 Chowchilla
 Delta-Mend
 Delta-Mend
 Fresno Riv
 Kaweah Riv
 Kern River
 Kern River
 Kern River
 Kings River
 Kings River
 Kings River
 Merced Riv
 Merced Riv
 Salt Sloug
 San Joaqui
 San Joaqui
 San Joaqui
 San Joaqui
 San Joaqui
 San Joaqui
 San Joaqui
 Stanislaus
 Stanislaus
 Tule River
 Tuolumne R
 Tuolumne R
 Tuolumne R

a Not show
 boundary
 transfer
 July 1,

b Conducti
 water st

c Disconti



Plate D-1

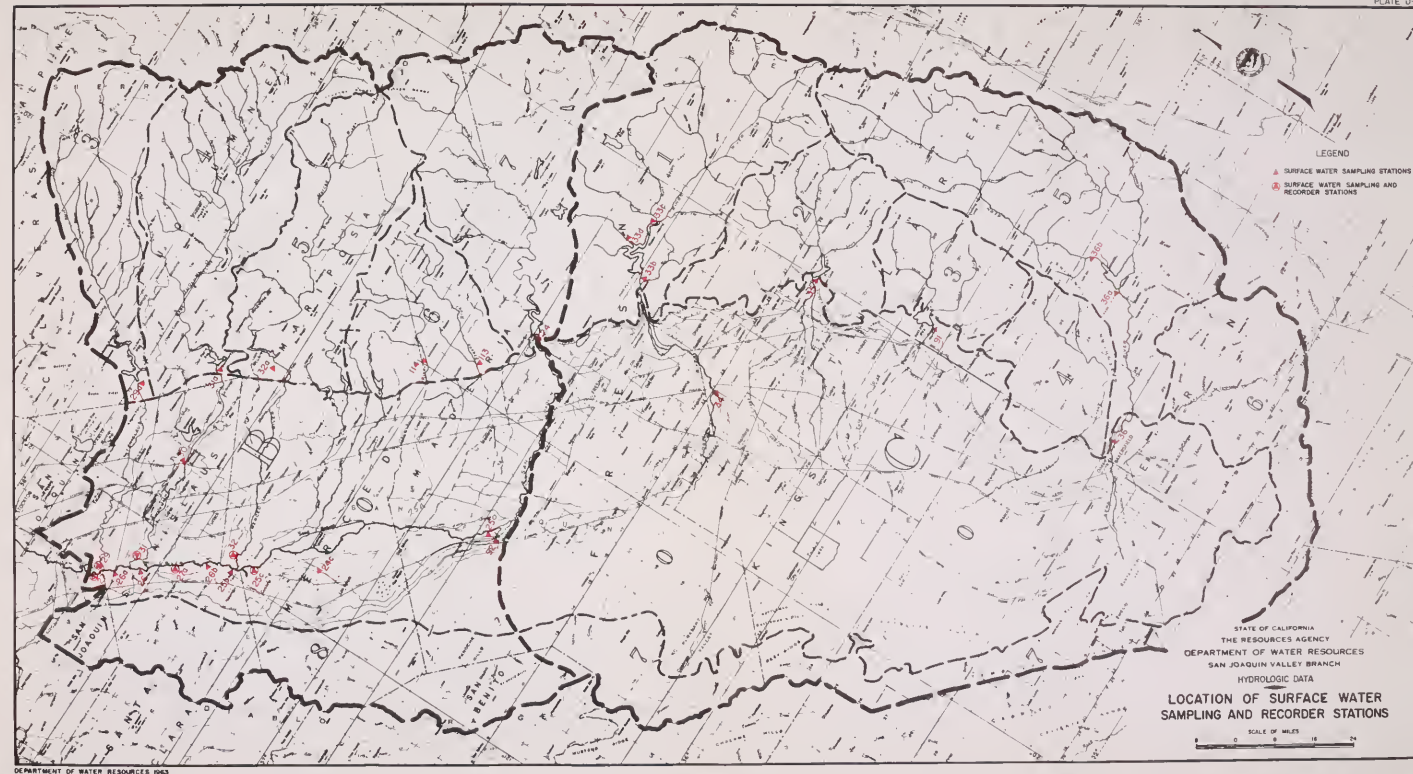
Surface Water Sampling and Recorder Stations

Station name	Station number
Big Creek above Pine Flat Dam	33d
Chowchilla River near Raymond	114
Delta-Mendota Canal near Mendota	92
Delta-Mendota Canal near Tracy ^a	93
Fresno River near Daulton	113
Kaweah River below Terminus Dam	35
Kern River near Bakersfield	36
Kern River below Isabella Dam	36a
Kern River at Kernville	36b
Kings River below North Fork	33c
Kings River below Peoples Weir	34
Kings River below Pine Flat Dam	33b
Merced River below Exchequer Dam	32a
Merced River near Stevenson ^b	32
Salt Slough at San Luis Ranch	24c
San Joaquin River at Crows Landing Bridge	26b
San Joaquin River at Fremont Ford Bridge ^b	25c
San Joaquin River at Friant Dam	24
San Joaquin River near Grayson	26
San Joaquin River at Hills Ferry Bridge ^c	25b
San Joaquin River at Maze Road Bridge	26a
San Joaquin River near Mendota	25
San Joaquin River at Patterson Bridge ^b	27a
San Joaquin River near Vernalis ^b	27
Stanislaus River near Mouth ^b	29
Stanislaus River below Tulloch Dam	29a
Tule River below Success Dam	91
Tuolumne River below Don Pedro Dam	31a
Tuolumne River at Hickman-Waterford Bridge	30
Tuolumne River at Tuolumne City ^b	31

a Not shown on plate as station is outside of branch boundary. Originally monitored by Delta Branch, transferred to San Joaquin Valley Branch as of July 1, 1963.

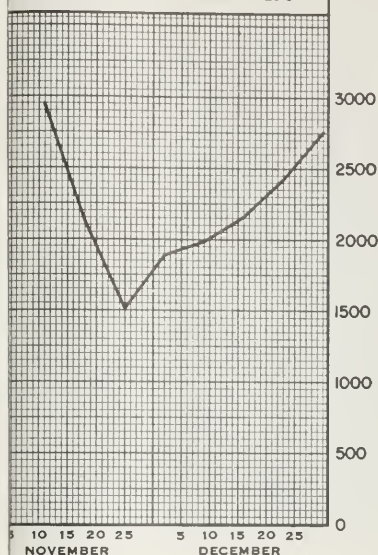
b Conductivity recorder installed at this surface water station.

c Discontinued as of July 1, 1963.

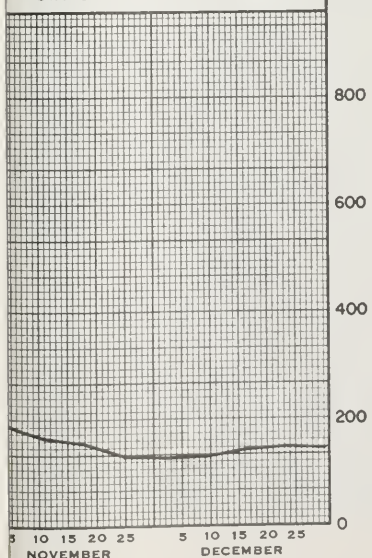




SAN JOAQUIN RIVER AT FREMONT FORD
STATION NO.25c RIVER MILE 129.5



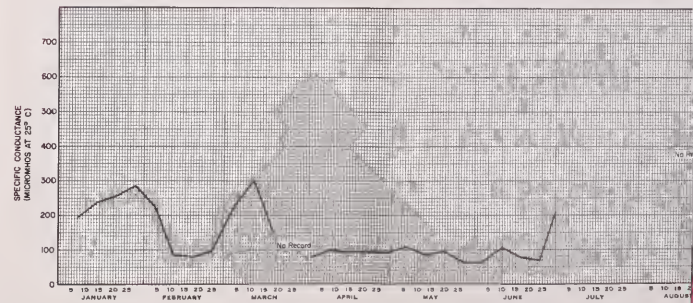
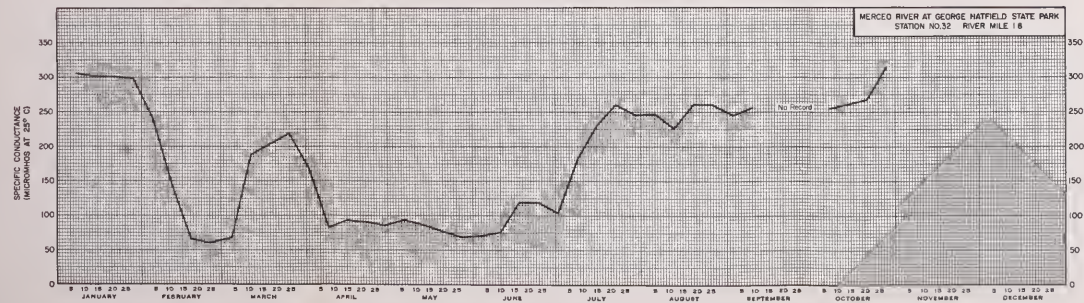
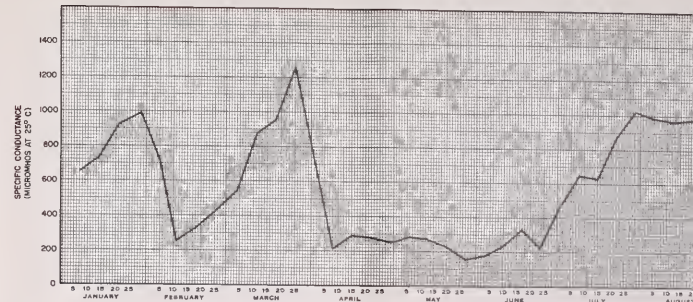
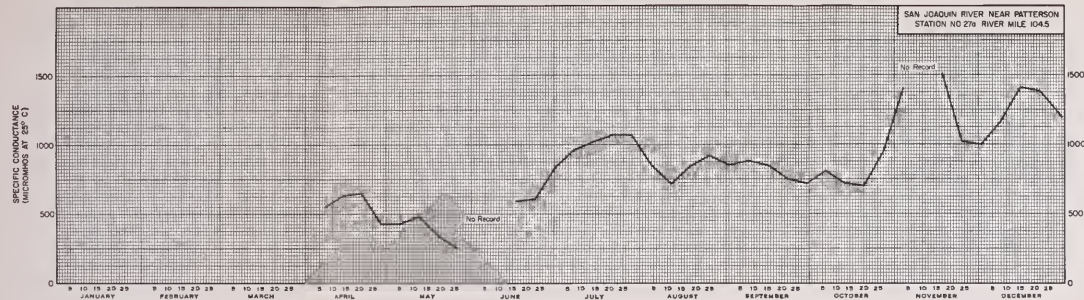
TUOLUMNE RIVER AT TUOLUMNE CITY
STATION NO.31 RIVER MILE 2.9

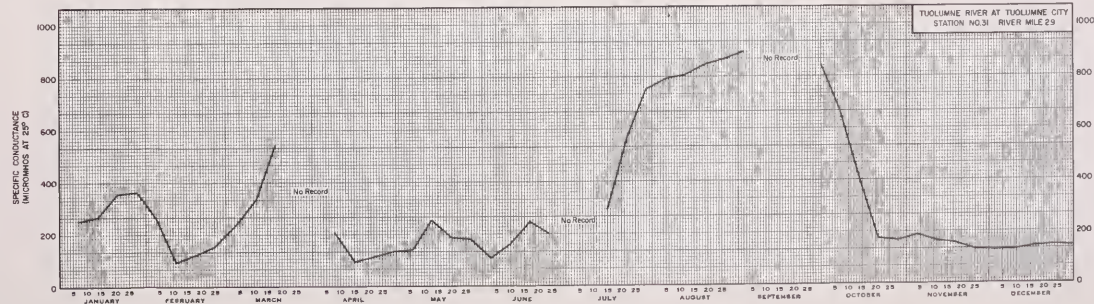
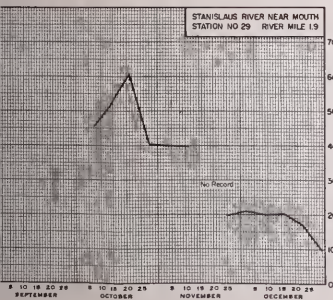
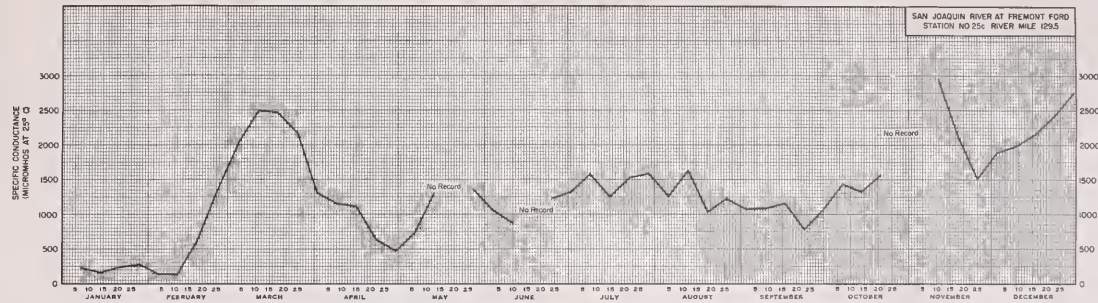
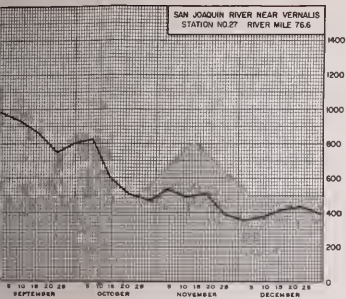


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SAN JOAQUIN VALLEY BRANCH

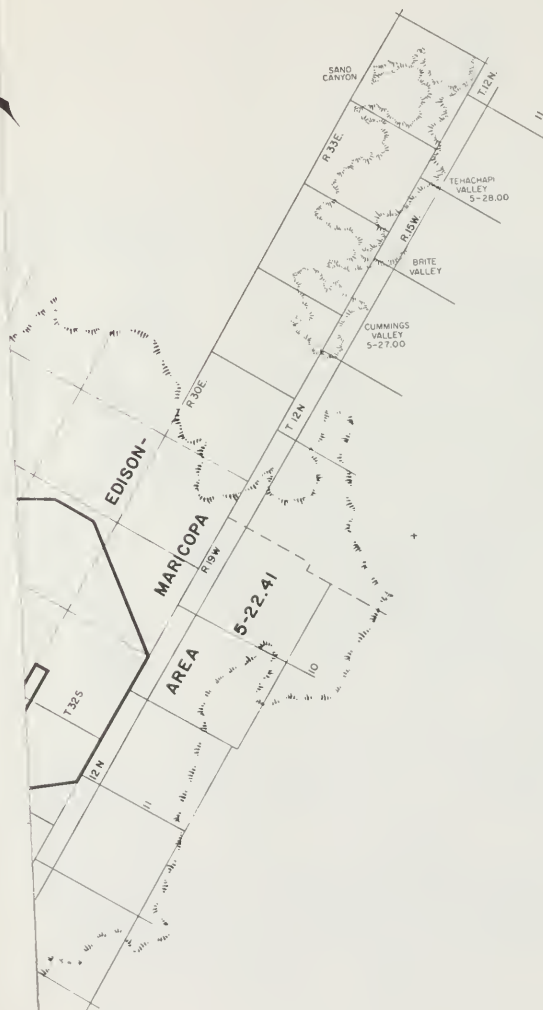
HYDROLOGIC DATA

WEEKLY MEAN SPECIFIC CONDUCTANCE
AT SELECTED STATIONS
SAN JOAQUIN VALLEY
1963



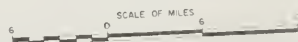






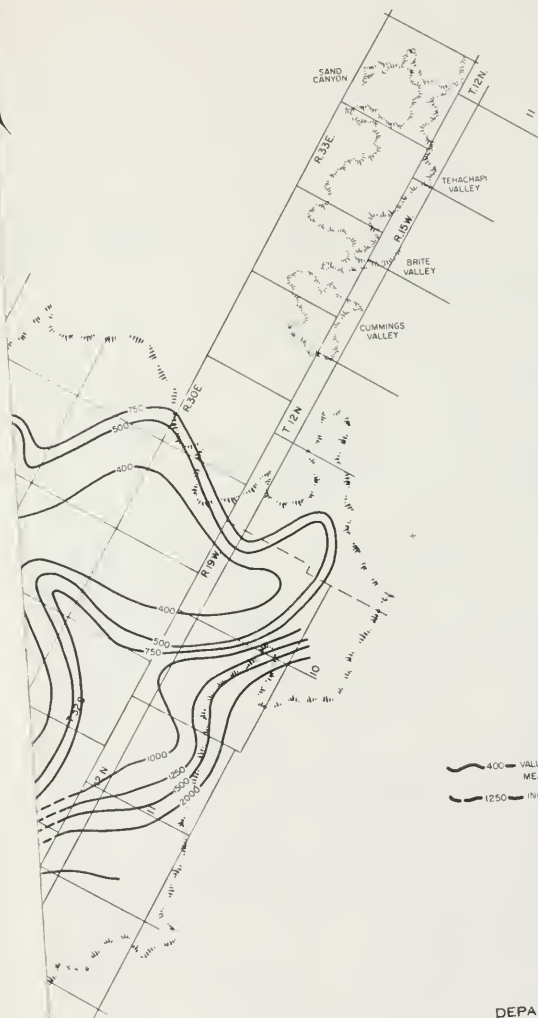
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DEPARTMENT OF WATER RESOURCES
SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA

GROUND WATER QUALITY
BASINS AND AREAS
SAN JOAQUIN VALLEY
OCT. 1, 1962 - SEPT. 30, 1963







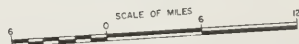


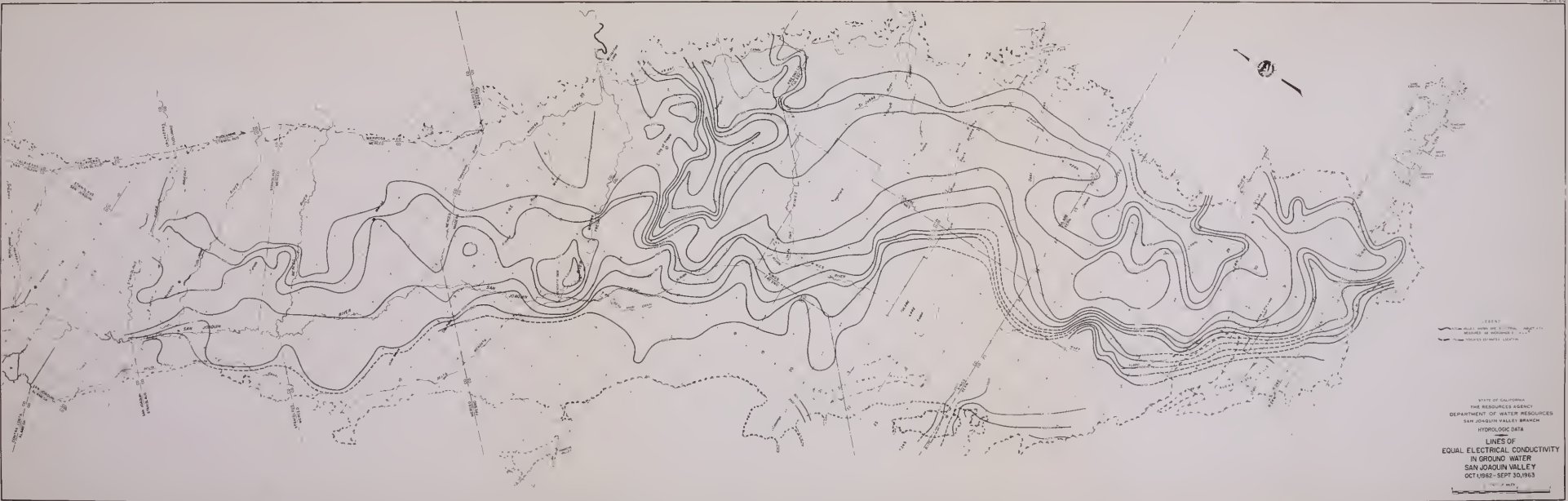
LEGEND.

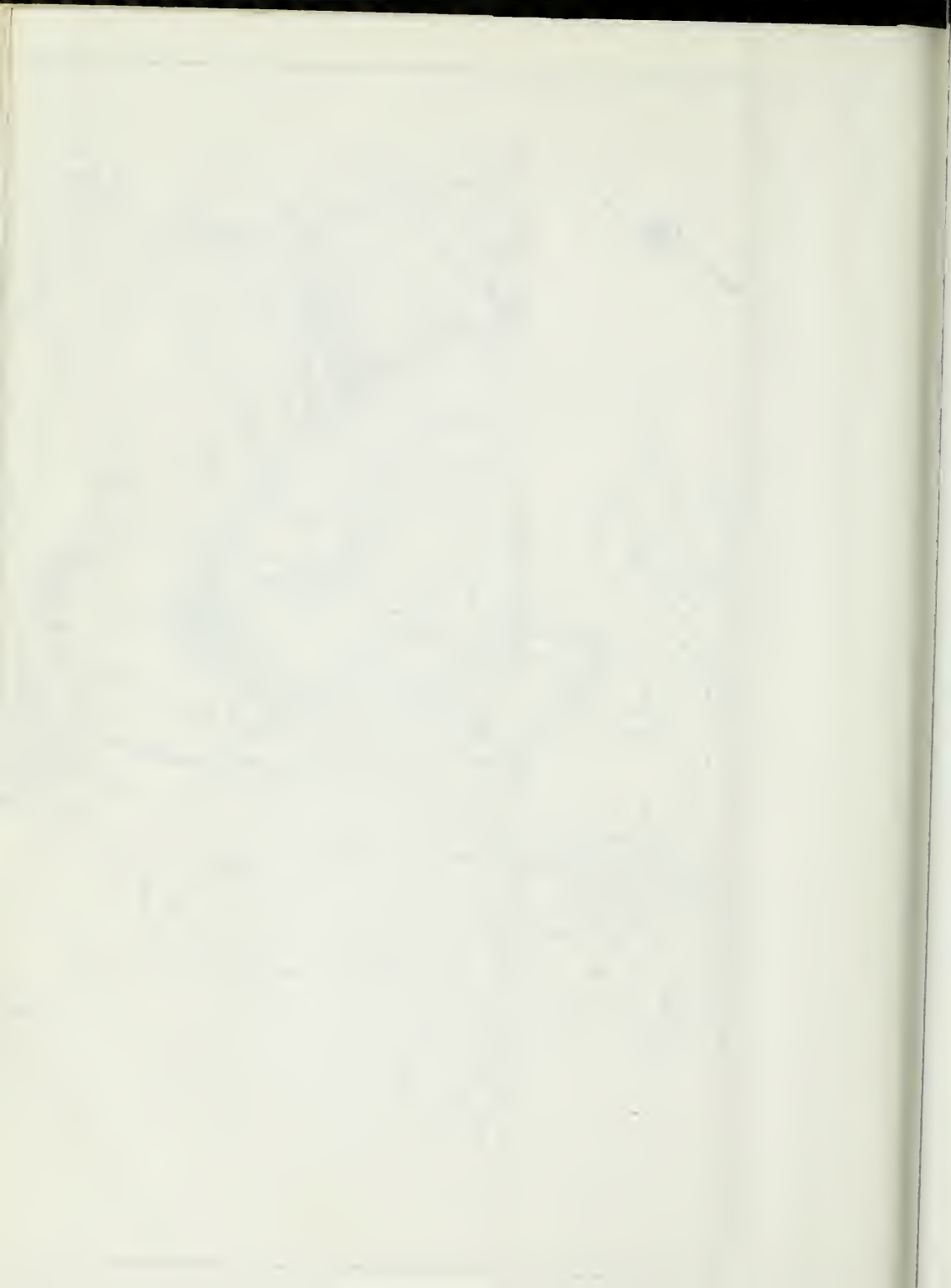
- 400— VALUES SHOWN ARE ELECTRICAL CONDUCTIVITY
MEASURED AS MICROMHOS EC: $K \times 10^6$
- 1250— INDICATES ESTIMATED LOCATION

STATE OF CALIFORNIA
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SAN JOAQUIN VALLEY BRANCH
HYDROLOGIC DATA

LINES OF
EQUAL ELECTRICAL CONDUCTIVITY
IN GROUND WATER
SAN JOAQUIN VALLEY
OCT. 1, 1962 - SEPT. 30, 1963









LEGEND

CATIONS

Ca	CALCIUM
Mg	MAGNESIUM
Na	SODIUM

ANIONS

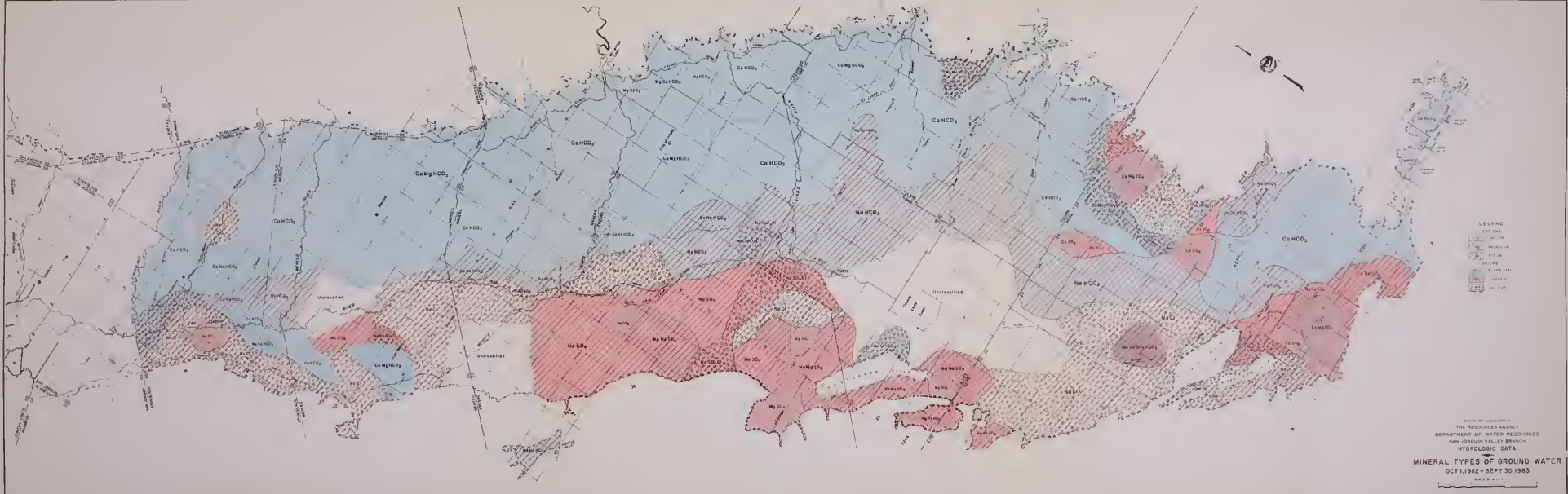
HCO_3	BICARBONATE
SO_4	SULPHATE
Cl	CHLORIDE

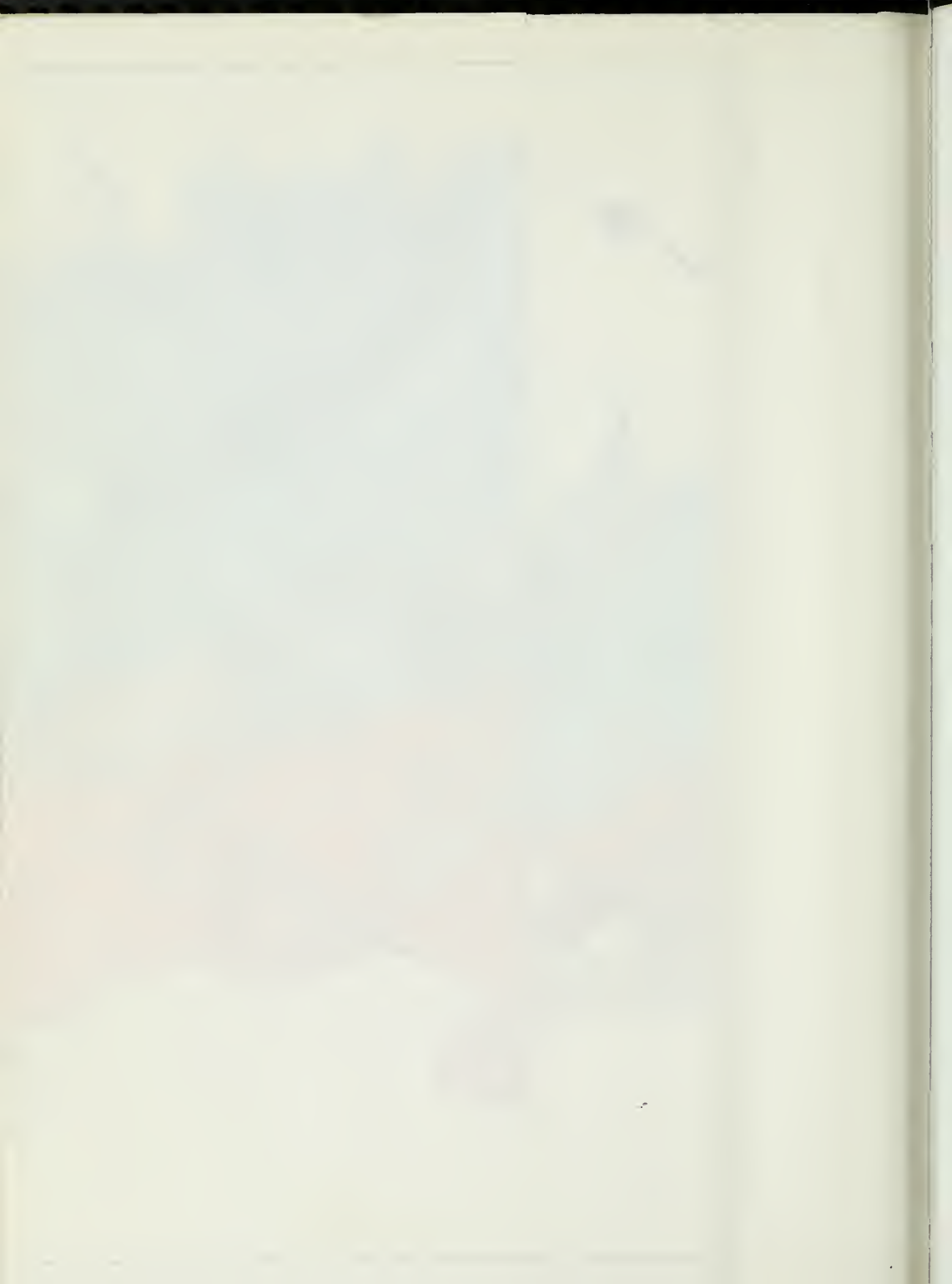
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MINERAL TYPES OF GROUND WATER

OCT. 1, 1962 - SEPT. 30, 1963







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